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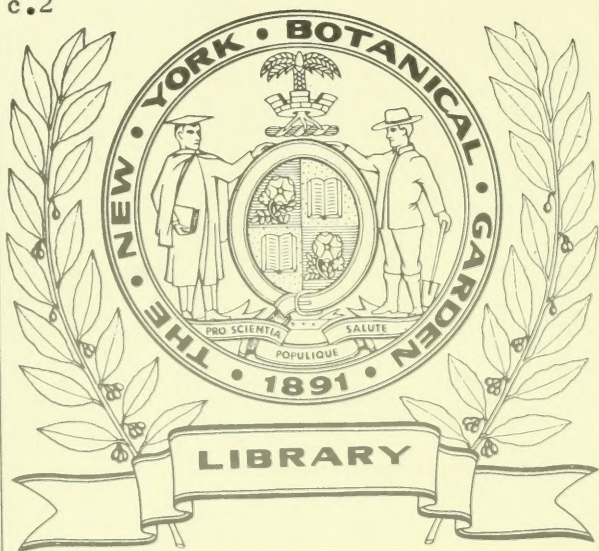
The Native Flora of the
Vicinity of Cold Spring
Harbor, L. I., N. Y.

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Thomas Mott Osborn Grier

The Native Flora Of The
Vicinity of Cold Spring
Harbor, L. I., N. Y.

N. M. GRIER.

THE NATIVE FLORA OF THE VICIN-
ITY OF COLD SPRING HARBOR,
L. I., NEW YORK.

N. M. GRIER.

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I.

THE GEOLOGY OF LONG ISLAND WITH ESPECIAL REFERENCE TO THE COLD SPRING HARBOR REGION AND ITS FLORA.*

N. M. GRIER.

To the botanist Long Island* is of peculiar interest. It presents some unusually attractive features in the sea beach and sand dune flora of the southern coast, in the pine barren region vegetation of the central part of the island, in the natural prairie, (Hempstead Plain), in the lake vegetation of Lake Ronkonkoma, in the deciduous forests of the great terminal moraines which run the length of the island on which are found a considerable variety of forest trees under special conditions; in the salt marshes, bogs and submerged gardens, all of the foregoing being easily accessible from the Biological Laboratory at Cold Spring Harbor. The value of the natural resources of Long Island is unusually great because of their proximity to a great consuming center, and detailed studies of its climate, soil, water supply, physiography and flora have therefore been made. On this account the relation of the vegetation to the physical conditions is more easily determinable, and the flora has been

* Contribution No. 8 from Biological Laboratory, Cold Spring Harbor, N. Y.

** This account of the Geology of Long Island is based on the following publications: Fuller M. L. The Geology of Long Island, N. Y., U. S. Geol. Survey Prof. Paper 82, 1914; Veatch, A. C. and others, Underground Water Resources of Long Island, N. Y., U. S. Geol. Survey, Prof. Paper 44, 1906; Bowman, Isaiah, Forest Physiography, published by John Wiley and Sons; and the account of the Camp Mills quadrangle given on that topographic sheet by W. C. Alden.

** Accompanying map drawn by J. F. Mueller, Department of Zoology, University of Illinois.

made the basis of extensive contributions to botanical knowledge.

GEOGRAPHY AND GLACIAL TOPOGRAPHY*

Long Island belongs to the inner part of the Atlantic Coastal Plain. Its greatest length is 118 miles and its greatest width 23 miles. The south shore is double—the inner or primary shore line is the border of a broad *lagoon*,—Great South Bay and its extensions; the outer shore line consists of narrow sand *reefs* of remarkably regular outline enclosing shallow bays and salt marshes. Opportunity is given to observe this double shore line in the annual excursion of the Laboratory to the south shore, Great South Bay being about one hour's drive by automobile from the Laboratory. The north shore is without notable indentation, but the western half is deeply embayed by a dozen or more well developed *fiords* such as Cold Spring Harbor, with steep sides and noteworthy depth of water. Here the fiord is five miles long and hardly a mile wide opening into Long Island Sound, itself an inland sea.** The vegetation of these harbors is well typified by that at Cold Spring Harbor, which has been made the subject of extensive study by Transeau ('13) Johnson, York and Conard ('15), Conard ('24).

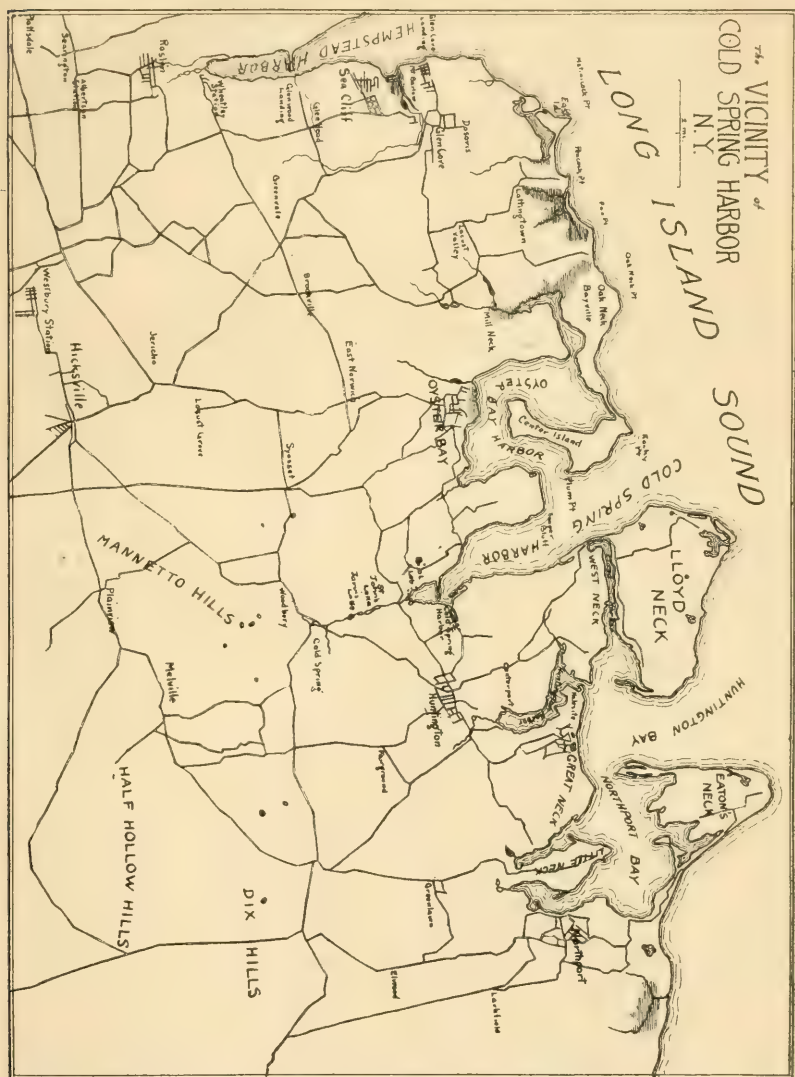
The profile section of Long Island north to south as one approaches the shore, indicates first a high plateau going inland. After a number of miles there arises abruptly to

* Topographic maps of the U. S. Geological Survey dealing with the immediate region of Cold Spring Harbor are those of the Oyster Bay and Northport quadrangles. Others dealing with Long Island are those of Staten Island, Brooklyn, Hempstead, Babylon, Fire Island, Sag Harbor, Easthampton and Montauk quadrangles on the southern shore; the Harlem, Setauket, Moriches, Riverhead, Shelter Island, Gardiner's island on the north shore. Geological Folios have been issued for the Staten Island, Harlem and Brooklyn quadrangles. The prices of the maps are \$.10 each when obtained from the Survey, but they may also be obtained from Abercrombie and Fitch, 57 Reade St., N. Y., or at Rand, McNally Co., 42 E. 22nd St., at a slightly advanced price.

** The results of a Biological Survey of the waters of Long Island Sound by Dr. P. S. Galtsoff are in preparation and will be published by the U. S. Bureau of Fisheries.

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a height of 100-150 ft. a high ridge composed of stratified materials. This is termed the Harbor Hill *moraine*, and it attains a height of 391 ft. above sea level, one and one-half



miles east of Cold Spring Harbor. Sloping to the south is the outwash formation. After a few miles south of irregularities, low ridges and mounds, another moraine is encountered—the

Ronkonkema—which is 410 ft. above the sea at High Hill, Huntington. It is considered to be the older of the two, since at places it is buried beneath the first. These two conspicuous morainal ridges form the backbone of the areas previously indicated, and each is a direct continuation of moraines of Wisconsin age which are traceable from the Rocky Mountains to New Jersey to Long Island, Nantucket and Cape Cod. East of Huntington, the moraines diverge more and more and enclose broad, sub level tracts. The coastal region, however, is comparatively level, with an elevation above sea level ranging from less than 50 ft. over the greater part of Long Island.

The glaciers invaded Long Island more than twice, for certain deposits of clay and gravel and sand show that there were advances of the ice even before the Ronkonkema moraine was formed. Most of the material composing the bluffs along the north shore and inlets is thought to have been laid down by this earlier ice sheet.* The eastern terminus of each moraine gives character to that end of Long Island and encloses a large body of water known as Peconic Bay. The Ronkonkema moraine is remarkable for the large body of water it encloses, Lake Ronkonkema, visited yearly by the botanical classes at the Laboratory. This is in a former glacial *kettle hole*, and is by far the largest lake on Long Island, attaining a depth of 80 ft., and extending to about 25 ft. below sea level. Both moraines bear the usual marks of terminal accumulations formed by the *continental ice sheet*. Their surfaces are deeply pitted by large and small kettle holes and depressions. Upon the floors of some of the enclosed depressions lakelets or swamps occur, and all others are distinctly moist, but by far the larger number are without standing water. Large portions of both moraines are composed of till of rather typical composition, but there are extensive localities where

* Dr. Ernest Antevs in a letter to the writer dated March 5, 1925, reports the finding of varied clay (the summer and winter deposits of glacial waters) at Glen Head, L. I., a few miles east of Great Neck, at a brick yard one-half mile east of the station. He adds that varves, (each of which represents one year of the glacial retreat), may be expected here and there on the northern coast as exposed.

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sand may compose all or nearly all of it. The sandy phases are developed chiefly at the eastern end, the clayey phases at the western end of the island. Boulders, large and small are scattered freely upon the surface and throughout the mass of both moraines. They are of variable composition—gneiss, schists, sandstones and quartzites predominating.

The long, gently sloping *outwash plains* extending southward from the moraines have been mentioned. Their northern margins are in many places pitted by kettle holes. Examples of these kettle plains are found west of Cold Spring Harbor station at Syosset and southwest of Huntington at the fair grounds. Where kettle holes have permanently obtained a water supply they have frequently influenced the settlement of the island. Two papers by Conard ('13-'23) deal with the revegetation of an area near Syosset which had become denuded artificially, and his observations yield clues as to the method of the first occupation of these outwash plains by the post glacial flora of Long Island.

The porous nature of the outwash material greatly reduces the run off of precipitation and instead of a normal run off of about 30%, such is only about 20% of the normal. The reduced run off has retarded the dissection of the frontal plains and the small elevation has favored the same result. There extend mile after mile of almost flat plains of alluvium in striking contrast to the ruggedness and picturesqueness of the terminal moraine. Plenty of old channels mark the beds of former streams, but few streams flow in them. The present drainage consists chiefly of small, wet weather streams extremely diminutive as compared with the ancestral streams whose channels they occupy. Veatch ('06) has shown that the effect of dams on the brooks of Long Island is to very materially decrease the stream flow at the points where dams are erected, and keeping in mind the foregoing, it may be deduced that a large amount of water escapes through the porous sides of the pond. Illustrative of the effect of this condition on vegetation of Long Island is Harper's account of a Long Island cedar swamp ('07). This swamp is located at Merrick, near the south shore of the island.

Excavations on the plain expose waterworn gravel and

sand and the evidence is that it originally was a natural *prairie* in the midst of a generally wooded region. The south plain is somewhat more extensive than the north plain, (which is between the two moraines), and ranges in width from less than a mile to more than 10 miles. A large tract of the surface of the south plain in the vicinity of Mineola, Hempstead and Camp Mills has always been open prairie, but elsewhere both the north and south plains were once covered with scrub oaks, scattered pines and underbrush and the terms "brushy plain" and "pine plain" which were in early days used to distinguish parts of them from the Hempstead plains, are still widely applicable. In North Hempstead the south plain stands 120 ft. above sea level, but north of Hicksville it rises to 200 ft. It is not much cut by sharp ravines or valleys, but is traversed from north to south by a series of channels 10-20 ft. deep, in the bottom of which springs issue and feed small streams that flow through the southern third of the plain, finally discharging into the marsh bordered channels at the south shore. Harper ('12, '18) has made a valuable study of the vegetation of this natural prairie, relating it to the geological conditions indicated. The prairie is within 5 miles of Cold Spring Harbor. Hicks (1892) first comprehensively listed the plants from this region.

The valleys of Long Island are generally free from conspicuous branching as would be expected if produced by the ordinary process of stream erosion. On the borders of each main valley are many smaller later valleys sloping toward the harbors, and more or less filled with late *drift*. Some of the original valleys of Long Island are buried, and were formed by glacial waters as well as by existing streams. The valleys in the Manhasset formation (Pleistocene) are everywhere conspicuous, having been cut from an elevation of 200 ft. Most have become modified from the action of the ice or the deposition of glacial debris. In many the modifications are confined to the deposition of a superficial mantle of drift. There may be low morainal accumulations on the valley sides such as that at Cold Spring Harbor. The slope of the bottoms of the valleys is usually gentle, 10-15 feet per mile, and they flatten in the lower mile or two per-

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mitting these parts to be occupied by the estuaries of the sea, and causing a slackening of the drainage. Such is the condition at Cold Spring Harbor. (Johnson and York, Conard, *loc. cit.*)

"Cold Spring Harbor,* which extends back in the country for 3 miles from the upper end of the harbor, is a sunken river valley. In the valley runs the stream of Cold Spring Creek, which expands at three different levels into broad, deep and shallow ponds connected by waterfalls and shaded by dense foliage. Cold Spring Creek, flowing laden with silt into the upper end of the harbor has aided the sea in forming the *sandspit*, which nearly cuts off an inner basin having an area of 110 acres at high water and 45 acres at low water, the mean range of the tide being 7.75 ft. and the maximum depth being 7 ft. over an area 100 ft. in diameter. The inner harbor is silting up, and its water is decidedly brackish at high tide varying from 1.006 to 1.016 at the surface and from 1.006 to 1.018 at the bottom.

The passage from the inner basin to the harbor is only 200-300 ft. wide at low tide, and through this gut the water flows at times with great rapidity. The steep sides of the harbor are piles of glacial drift full of clay, siliceous sand and gravel and boulders of varying size. This determines the prevailing character of the shore line, sandy or gravelly beaches with boulders extending into deep water and most abundant at the base of the worn off bluffs. Mud flats are common, but for the most part are underlaid with sands at a depth of 1-3 ft. A mud flat extends from parts of the sandspit at the level of mean low tide. No rock occurs in place, but on many headlands the accumulated boulders form an extensive rock work. At intervals the shore line is diversified by salt meadows, partly enclosed salt ponds and shallow harbors and bays.

Opening into Cold Spring Harbor at about the middle of its western side is Oyster Bay, a tortuous body of water running back some 6-7 miles and having a breadth varying from 1½ miles to ½ mile. Oyster Bay also receives at its

* Following the account of Davenport, C. B., and Johnson, D. S. The Flora about Cold Spring Harbor ('98).

upper end a fresh water stream, Mill Creek, which is of considerable volume, while both harbors receive at intervals along their coast line smaller streams. In the outer harbor above the entrance to Oyster Bay the water is uniformly 15-18 feet deep at low tide. Immediately below Oyster Bay entrance is a bar with only 6-10 ft. of water at low tide. At the eastern end of this bar is a channel 72 ft. deep. Outside of the bar the water deepens steadily toward the middle of the sound."

The flora of the outer coast of the north side of the island, of the quiet mud bottomed pools a hundred yards back from the outer beach which are flooded at high water by salt creeks, of the boulders scattered along the shores of the harbor, of the quiet brackish areas near its inner end, of the lakes at the upper end of the valley, of the springs and pools on the edges of these lakes and the dense woods surrounding them forms the basis of this list, to which have been added the plants encountered on the excursions of the botanical classes.

Observations indicate that about four-fifths of the ordinary shallow valleys lying south of the outer moraine have steeper banks on the west than on the east side. A study by the writer ('23) indicates that the cumulative effects of wind and vegetation upon wind borne materials may explain this in part at least. Exceptions appear, however, in the deepest valleys. Here the configuration depends on the curvature of the streams. The erosion and cutting continue unto the present day on the south shore where the water table comes to the surface and supplies short streams with water. The side slopes of the valleys are in large part steep and wooded and are not now undergoing rapid change but storm waters cut ravines in them, and springs here and there form gullies and cause loose sand to flow out as quick sand.

The south coast originally consisted of broad, lobelike projections of sand and gravel since extended by the formation of marsh deposits. Some believe these lobes were formed by the deposition of materials carried out by the melting ice, and that the southern two-thirds of the island is thought to be made up of confluential deltas from glacial

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streams; others that the sands and gravels of the south side represent the underlying Tertiary formations.

Taylor, ('15), remarks that "the glaciated portion of our range, besides being the home of so many native plants not found elsewhere is typified by the large percentage of hardwood trees, the relative scarcity, numerically of coniferous trees and above all by the great number of species introduced. Perhaps three fourths of all adventive and naturalized species find their greatest development in this area. The glaciated portion (Long Island) contains many swamps, ponds and bogs and it is the latter that are the chief interest to the botanist. These undrained areas maintain a flora quite characteristic. It has been shown that that section . . . which was neither glaciated nor on the coastal plain does not contain these plants, characteristic of the glacial bogs of the north and also found in the typical cranberry bogs of the coastal plain." Swamps, ponds and bogs are readily accessible to the botanist in the immediate vicinity of the Laboratory at Cold Spring Harbor, and the region of Lake Ronkonkoma, while the classes make excursions to the nearby bog at Woodbury. A popular article in this connection is by Vail ('95) dealing with the June flora of a Long Island swamp.

Taylor ('15) also gives a list of ferns, fern allies and seed plants found only north or south of the moraine. Additions to the flora of Long Island north of the moraine but not necessarily limited to that region are found in recent papers by the writer, ('24-'25). Little if any work has been done in this connection upon cryptogamic groups. Harper, (1917a,b.) has described the conditions of vegetation in the glaciated and unglaciated portions of Kings and Queens Counties in the western part of Long Island, bringing out interesting differences.

Taylor, ('15) additionally points out "Long Island is geographically unique in that the terminal moraine abuts directly on the coastal plain for nearly the whole length of the island. Whether as previously indicated the region south of the moraine is mostly overlaid with overwash material from the glacier or whether the sands or gravels of the south sides are the underlying Tertiary formations, may be

a matter of doubt. It would make an interesting future study to determine the effect if any of the distribution of these different sands and gravels on the distribution of the plants on the island."

Associated with Tertiary soils and the coastal plain are the Pine Barrens of Long Island which have been described in part by Britton ('80), Harper ('08) and for Staten Island by Burnham ('13).

RECENT EPOCH

During post glacial times transportation has taken place on a large scale; the waves cutting into the bluffs at Montauk Point and at some places farther west, have sorted out a vast amount of sand which has been transported southwestward in the direction of the prevailing winds, and has been built into *bars*, crossing the narrower inlets and into notable *barrier beaches* such as Fire Island and Rockaway beaches, and across wider bays. Storm waves sometimes cut channels through these barriers, and some of the channels are kept open by the tidal flow, the outflow from enclosed bays. The surfaces of these beaches are in many places diversified by hillocks of wind blown sand or *dunes* 10-30 ft. in height. The growth of vegetation in the shallow waters behind the barrier beaches has produced a great marsh which is intersected by a bewildering maze of channels and small bars. These deltas, beaches, bars, dunes, and the sandspits, marshes and connecting beaches to be mentioned constitute the recent series of deposits and as will be seen, are in the process of formation today. The vegetation of the region of Montauk has been extensively studied by Taylor ('23) and in less detail by Clute, ('97-'99).

When the ice retreated there were many disconnected islets adjoining the mainland. In most places the intervening waters were shallow. The waves and shore currents rapidly extended hooks and spits completing Long Island as it now appears. Marshes and beaches served as connecting agencies in the cases of Oak Neck and Center Island, while Lloyd and Eaton Necks are connected by beaches alone. Such beaches are thought to have joined with Long Island what must have been 15 distinct islands. Studies

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of interest indicating the nature of the process, i. e., marsh formation during recent years are those of Johnson, York, and Conard, *loc. cit.* Harshberger ('07-'16) has also made marked contributions to our knowledge of the vegetation of these salt marshes.

The bluffs of the open northern coast are mostly free from vegetable growth. The remainder are artificially covered with grasses, trees and other vegetation as at Cooper's Bluff. The whole line of the coast may be changed by a single storm which may eat into the bluffs, or throw up in front barriers of sand gravel according to the direction of the wind, angle of impact of the waves and nature of the currents set up. As the larger stones that slide down the bluff are moved but little if at all by the waves, they accumulate in some places and there protect the shore. The barriers stay until removed by storms and currents in other directions. Some last for years on account of grasses and trees taking possession of them, but sooner or later cutting begins again. The cliffs are best preserved where coherent materials exist in them. Good exposures of their component structures are found at Eaton and Lloyd necks. In the regions where they are destroyed there ensue lesser bars, beaches and spits connecting smaller islets with the mainland or projecting into harbors, (such as the sand spit at Cold Spring Harbor), the bays or the sound. Generally, the current flowing out of the inlet is strong enough to keep a narrow channel open, but the waves form a hook at the tip of the spit. The prevailing direction of the wind on the north shore is westerly, but the direction changes frequently, when under certain conditions spits may be extended from both sides of a point or inlet. Such processes have largely made the shore of Long Island more regular. A detailed account of the formation of the sandspit at Cold Spring Harbor and its animal ecology has been given by Davenport, ('03), while the plant ecology has been studied by Johnson, York and Conard (*loc. cit.*)

Long Island thus appears to have been the result of the opposed agencies of deposition and erosion. It is comparatively small now, for since Cretaceous times erosion has predominated over deposition. It is estimated that the amount

to be removed before the island is reduced to sea level is less than that removed in the past. The present form of the island appears to be due to constructive rather than destructive agencies. Since the disappearance of the ice sheet there has been some subsidence of the island—about 25 ft. Some think, however, this subsidence may indicate only the washing through of the lower beaches, or even local submergence. The studies of Johnson, York, and Conard, ('15) and Conard ('24) afford a quantitative basis for the further study on Long Island of this question from the botanical side.

TOPOGRAPHIC FEATURES RELATED TO STRUCTURE AND GEOLOGICAL HISTORY*

The basal deposits of Long Island consist chiefly of Pre-Cambrian gneiss with intrusions of granite, dolomite and gneiss, the latter appearing as ledges on the banks of the East River.** Upon a base-levelled and down warped rock floor, Cretaceous and Tertiary materials were laid down, the line between the deposits of the coastal plain and the metamorphic rocks crossing the extreme west end near Long Island city. The Cretaceous deposits correspond to beds of similar age in New Jersey and southwards. They have not been seen however, in the western half of the island nor have positive equivalents of the Tertiary deposits of the mainland been noted. Only a part of the deposits are true coastal plain deposits, the greater portion of the underlying surface being material of Pleistocene age representing the morainal and outwash accumulations associated with continental glaciers. The Cretaceous is highly developed and possibly comes to the surface at High Hill in Huntington.

* The account given by Hollick ('93) is followed here.

** Among the minerals found on the beach of the sandspit at Cold Spring Harbor are red sandstones and shales evidently from the Connecticut Valley lowland, arkose sandstone, quartzite, grey quartzite, quartz schist (slate schist), granite, mica schist, granite gneiss, quartz (rosy, smoky, yellow), conglomerate. Cretaceous clays at Cold Spring Harbor also yield pyrite, limonite and lime concretions.

For the collection of these minerals I am indebted to Miss Betty Watt, University of Pittsburgh, for their identification to Professor J. W. Goldthwait of Dartmouth College.

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Two outcrops of Cretaceous materials occur on the west side of Cold Spring Harbor, one one-half mile south of Cooper's Bluff, the other opposite the village, one-half mile northwest of the sandbar. Above are the Wisconsin stage deposits consisting of till, stratified gravel, and also white sand, yellow, white and salmon colored clays. On the east side of the harbor are abandoned clay pits, south of Lloyd Beach which connects Lloyd and West Necks. Here occur diatomaceous deposits, and Cretaceous plant fossils, (see list), indicating a past land connection with New England. Our knowledge of the fossil flora of Long Island is mostly due to the researches of Hollick ('93-'12) with Newberry ('86) Ries, ('84) and Jeffrey ('06-'08) adding important contributions.

Following the laying down of Cretaceous and Tertiary materials, (clays, sands, gravels and marls), along the eastern borders of the north American continent an era of elevation began, which raised them hundreds of feet above their present level, forming a wide coastal plain which extended into what is now a part of the bed of the Atlantic Ocean, probably at the 100 fathom contour. It is thought to have been bounded on the land side by the crystalline and Triassic rocks of Connecticut, southern New York and Pennsylvania. There is reason to believe that its limits were approximately that of the coast line today. This area will be seen to include the whole of Staten Island, Long Island, Block Island, Martha's Vineyard and Nantucket besides a large portion of the submerged coast, eastward and southward.

The ensuing erosion was first normal, and resulted in the formation of an inner lowland where Long Island Sound occurs. The erosion of this inner lowland was continued to the point where a well developed *cuesta* was formed and it is to the further accumulation of glacial materials upon the summit of the *cuesta*, that Long Island owes its present marked contrast between rugged moraine and abrupt high shores on the one hand, and smooth southern plain, with low reedy, flat southern shores on the other. The scouring action of the ice sheet further deepened the inner lowland, and with the final disappearance of the ice sheet from the

region a slight sinking of the land brought out even more strongly the features owing to depression. It seems probable that at some time during the oscillations of level, that the sea having eaten away the coastal plain, finally reached the barrier of the terminal moraine. The moraine gave away in places, channels were formed and detached portions remained to form islands recognized today as Block Island, Martha's Vineyard, Nantucket and the many lesser islands streaming from the end of Long Island toward Cape Cod, while the eroded portions are represented by the great submerged ridges known as the Nantucket or other shoals.

II.

SOILS AND VEGETATION.

"Soil maps of Long Island show four broadly defined types of soils: (1) stony loams and gravels which occupy the terminal moraine and the narrow plateau between the northernmost moraine and the north shore as in the vicinity of Cold Spring Harbor; (2) coarse sandy loams which constitute the greater portion of the outwash plains; (3) fine sandy loams which form the outer fringe of the outwash plains and those portions of it adjacent to the old drainage ways; (4) clay loams that form a transition type between the upland and the salt marsh and the beach sands. While the clay loams have greater natural fertility than the sandy loams they are often found on lands too rough for cultivation and the great market gardens are found on the outwash plains principally where many of the conditions are ideal.

Of the soil types apt to be encountered in the area covered by the accompanying list of plants there is first the Alton stony loam which is found in the immediate vicinity of Cold Spring Harbor. "A large portion of the Alton stony loam was formerly predominantly forested with chestnut and a characteristic undergrowth of mountain laurel, the moraine particularly, bearing scarlet and red oak, some white oak, hickory, chestnut, and in a few localities scattered pitch pines. Dogwood forms a notable undergrowth with masses of fern

* For a detailed discussion of the soils of Long Island see Soil Survey of the Long Island Area, N. Y. Bonsteel, J. A. and party, U. S. Dept. of Agriculture. Bureau of Soils, 1903.

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and considerable greenbrier among minor plants. Unoccupied fields grow up to cedar. The locust thrives on this soil, and is cared for to form a supply of fencing material. In the more western area of the island market garden crops are produced from this soil, and it is well adapted to the later truck crops." The village of Bayville is built upon the Alton stony loam.

The Galveston sand composes the sandspit at Cold Spring Harbor, is found also at Cooper's Bluff, and forms the sand dunes of the ocean shore,, where it becomes covered with wiry grass, cedars, and oaks. It has no value as an agricultural soil. With the Galveston sandy loam it makes up the beaches of the south side of the island, and connects most of Center Island with the mainland. The Galveston clay forms the banks of Cold Spring Creek near the Laboratory. It is constantly saturated with tide water.

At the top of the hill on the east side of the inner harbor one encounters the Miami stony loam. It was originally strewn with large sized erratic glacial boulders, and is a typical glacial soil. Its texture and structure place it in the group of grass and grain producing soils. It is the most drought resisting type found on Long Island and produces good yields of later truck crops, but the majority of the crops are produced by the fertilizer rather than the inherent fertility of the soil. This soil also occurs at Lloyd and West Necks, and covers most of Center Island.

East of Cold Spring Station and in the vicinity of the fairgrounds at Huntington is the Hempstead loam. It is the chief soil of the Hempstead Plain. It is however underlaid at a depth of about 2 ft. by a bed of rounded quartz gravel—"hard pan"—which is a determining factor in the vegetation of the plain. The Hempstead gravelley loam occurs around the margins of the Hempstead loam, and in the narrow dry stream beds of the plain.

The Norfolk sand occurs in the pine and scrub oak country, north of Lake Ronkonkema and the country just north of Babylon, Bayshore and Islip. It is the typical pine barrens soil, and is too much subject to drought to be of value for cultivation. The distribution of stunted species of oaks on certain sections of the moraine corresponds almost pre-

cisely with that of the Norfolk sand. South of High Hill at Huntington occurs the Norfolk gravel. It is referred to earliest Pleistocene deposition. Agriculturally, it is useless. Southeast of Cold Spring Station is a small patch of the Sas-safras gravelly loam. It is well drained, and is intensively cultivated for garden crops. This type also occurs at St. James, Long Island.

III.

CLIMATE*

This is maritime in type. The tempering influence of the Atlantic Ocean is modified to a considerable extent by the prevailing westerly winds from the continental interior, giving the region relatively mild winters for the latitude and not excessively warm summers, long growing season and abundance of precipitation well distributed throughout the year, and rather high relative humidity. On Long Island the driest month is April with a total of 7.3% of the total annual precipitation while the wettest is August with 10.5%. The winter rainfall is generally greater than that of spring or autumn, and only 3% less than of summer. The average length of the growing season between the last killing frost of spring and the frost of the fall is something over 200 days for Long Island. For the benefit of botanists desiring the use of the facilities of the Laboratory throughout the year the following records compiled from those of the U. S. Weather Bureau are cited.

The means of the records of the monthly, annual and average amount of precipitation in inches of the nearest weather stations to Cold Spring Harbor are:

STATIONS	Elev. No. Yrs. Jan. Feb. Mar.				
	50 ft.	12	3.88	2.39	3.72
Oyster Bay-----	Apr. May June July Aug.				
	4.09	3.48	3.61	4.26	6.68
-----	Sept. Oct. Nov. Dec. Annual				
	4.3	3.68	2.53	3.47	46.09

* Compiled from reprint of section 104, Eastern New York. Summary of Climatological data for the United States by sections, Weather Bureau, U. S. Dept. of Agriculture.

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Roslyn-----	Elev.	No. yrs.	Jan.	Feb.	Mar.
	220 ft.	9	4.17	3.62	4.31
	Apr.	May	June	July	Aug.
	3.78	3.70	3.55	3.73	4.59
	Sept.	Oct	Nov.	Dec.	Annual
	3.78	3.43	2.82	4.57	46.05
Setauket-----	Elev.	No. yrs.	Jan.	Feb.	Mar.
	40 ft.	35	4.	3.98	4.29
	Apr.	May	June	July	Aug.
	3.74	3.44	2.73	4.17	4.31
	Sept.	Oct	Nov.	Dec.	Annual
	3.50	4.12	3.66	4.03	45.97

The principal temperature records are from Setauket where the station is located on a neck of land that projects into the estuaries of Long Island Sound, ground level, and nearly surrounded by water.

TEMPERATURES AT SETAUKET

	Jan.	Feb.	Mar.	Apr.	May	June	July
Mean (35 yrs.)-----	30.8	29.5	37.1	47.3	57.9	66.2	72
Highest temp. (31 yrs.)	.66	64.	75	87	91	93	98
Lowest temp. (31 yrs.)	—3	—6	7	21	34	40	50
	Aug.	Sept.	Oct.	Nov.	Dec.	Annual	
Mean (35 yrs.)-----	70.6	64.8	55	44.3	34.6	50.8	
Highest temp. (31 yrs.)	95	93	86	71	63	98	
Lowest temp. (31 yrs.)	50	37	31	16	—7	—7	

For Setauket, in 31 years, the earliest date of the last killing frost in the spring is given as March 27 with the latest May 17. The average date, however, is found between the second and third week of April. In the fall, the date of the earliest killing frost is Oct. 22nd, the latest November 29, the average occurring in the first and second weeks of November. For this same point the greatest growing season recorded has been 247 days, the minimum 158 days, with an average of 211 days.

IV.

THE FLORA OF COLD SPRING HARBOR AND
BOTANICAL RESEARCH

Opportunities for the systematic botanist are indicated at least in the paucity of records for certain plant groups in the accompanying list, especially the cryptogams. The records to date include the following main divisions of the plant kingdom, exclusive of the Bacteria, and to this list may be added the records of Jelliffe ('99-'04) Burnham and Latham ('14-'24) Fish ('25), Bigelow ('22).

GROUP	GENERA	SPECIES
Schizophyceae -----	20	47
Myxomycetes -----	26	57
Flagellatae -----	7	9
Dinoflagellatae -----	6	14
Silicoflagellatae -----	2	2
Diatoms -----	44	75
Conjugatae -----	18	59
Chlorophyceae -----	32	51
Charophyta -----	2	5
Phaeophyceae -----	22	33
Rhodophyceae -----	37	54
Phycomycetes -----	9	9
Ascomycetes -----	37	53
Basidiomycetes -----	82	185
Fungi Imperfecti -----	16	20
Lichenes -----	15	32
Hepaticae -----	22	38
Musci -----	43	63
Filicales -----	21	32
Equisetales -----	1	1
Lycopodiales -----	2	5
Isoetales -----	1	1
Gymnospermae -----	9	13
Monocotyledonae -----	106	234
Dictyyledonae -----	412	773
Totals-----	991	1,865

Protozoologists have remarked upon the unusual richness of the Flagellate flora of the Cold Spring region, but this has received little attention so far. The American forms should be more comprehensively studied, following the lead of Walton ('15). Additional records for the Dinoflagellates,

THE GEOLOGY OF LONG ISLAND, ETC.

Silicoflagellates and Diatoms may be expected in the forthcoming report of the Biological Survey of Long Island Sound conducted by Dr. P.S. Galtsoff under the direction of the U. S. Bureau of Fisheries. Material in the possession of Professor Transeau will undoubtedly yield new records for the Conjugatae and Chlorophyceae. Many exotic species of ferns and seed plants are represented in the gardens of estates in the vicinity of Cold Spring Harbor. The estates have generally been available to members of the Laboratory, and their flora will be the subject of a later list by the writer. Botanists will be able to collect abundant material for class room use in the vicinity of the Laboratory, while the range of the flora may prove suggestive to the plant anatomist. Of especial interest to the latter are the fossil plants of Long Island, the structure of some species of which have been studied by Hollick and Jeffrey ('09) but many have not received such attention.

The account given of the relation of the geology of Long Island to the flora, so far as it has been studied, may be of interest to the plant ecologist. As suggested by Conard ('24) it is hoped that observers may be found to study the succession of the vegetation in subsequent years in the salt marsh and sandspit. Investigations of the salinity of the water in the various creeks and rivers flowing into Cold Spring Harbor, and the rate of evaporation at different levels above and below high water marks await plant physiologists, to whom the flora of the salt marshes, especially those plants which are exposed to both fresh and salt water are of peculiar interest. Opportunities for the plant geneticist are at present mostly limited to collaboration with members of the staff of the Carnegie Institution.

The adjacent library of the Department of Genetics, Carnegie Institution of Washington, the easy accessibility of the New York Botanical Garden, the Brooklyn Botanic Garden, the American Museum of Natural History in New York City, and the Boyce Thompson Institute for Plant Research at Yonkers, N. Y., in addition to the above make the Biological Laboratory at Cold Spring Harbor, N. Y., a convenient center for botanical research the year around within of course the limits of the type of investigation to be pro-

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jected. The increased facilities now being planned by the Board of Directors will make it even more so.

V.

THE NATIVE FLORA OF THE VICINITY OF COLD SPRING HARBOR, N. Y.

While this contribution is intended to serve primarily as a check list for the use of students and botanical research workers at the Biological Laboratory, Cold Spring Harbor, New York, it will also serve to acquaint others who may be interested with the rich flora of the vicinity of the Laboratory, and indicate opportunities for its further study.

Since assuming charge of the course in Field and Systematic Botany at the Laboratory, the writer and assistants have been engaged in making a card catalogue of the native and cultivated plants in the vicinity of the Laboratory as these were collected by members of the staff and students. He has also examined and assembled records left by former workers at the Laboratory and from the foregoing and all other available records in the literature dealing with the Flora of Long Island—including all those species apt to be encountered by members of the Laboratory in the field—has compiled the following list. All who collect in the vicinity of Cold Spring Harbor in the future are requested to send their records to the Director of the Laboratory in order that the knowledge of the local flora be as complete as possible. The workers whose data besides that of the writer is represented in this list are:

Professor L. N. Johnson, University of Michigan—L. N. J.

Professor D. S. Johnson, Johns Hopkins University.—D. S. J.

Mrs. Mary Lentz Johnson—M. L. J.

Dr. H. H. York, New York State Conservation Commission, Albany,
N. Y.—H. H. Y.

Dr. G. C. Fisher, American Museum of Natural History.—G. C. F.

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Professor L. D. Swingle, University of Utah.—L. D. S.

Professor W. E. Maneval, University of Missouri.—W. E. M.

Dr. A. F. Blakeslee, Carnegie Institution, Cold Spring Harbor, N. Y.
—A. F. B.

Professor H. S. Conard, Grinnell College.—H. S. C.

Professor E. N. Transeau, Ohio State University.—E. N. T.

Professor J. Arthur Harris, University of Minnesota.—J. A. H.

Miss Miriam Bomhard, University of Pittsburgh.—M. A. B.

Miss Charlotte Easton, University of Chicago.—C. E.

Miss Gail Holliday, Wheeling High School.—G. H. H.

Professor Susan A. Green, Maryville College.—S. A. G.

Miss Betty Watt, Carnegie Institution, Cold Spring Harbor, N. Y.
—B. W.

Professor A. A. Schaeffer, University of Kansas.—A. A. S.

Professor John W. Harshberger of the University of Pennsylvania and Professor O. E. Jennings of the University of Pittsburgh have contributed through the verification of records. Others who kindly aided in revising certain portions of the manuscript group are cited in connection with their particular service.

“Die Natürliche Pflanzenfamilien” of Engler and Prantl and the “Syllabus der Pflanzenfamilien” of these authors, (1919) form the back ground of the taxonomy and nomenclature used in the cryptogamic groups exclusive of the Pteridophyta, although the specialists revising these have been given full sway, authoritative works being cited. In the Pteridophyta and all higher groups the arrangement is essentially that of Britton and Brown’s “Illustrated Flora of the Northern States and Canada,” edition of 1913.

I.—SCHIZOPHYTA.

SCHIZOMYCETES.

Here Jelliffe* includes common pathogenic and saphro-

* Jelliffe, S. E. “The Flora of Long Island” published by the author 64 W. 56th St. N. Y. City, N. Y. Also “Additions to the Recorded Flora of Long Island” *Torrey* 4. Hereafter reference to these papers will be to the name of this author, with whom, however, were associated other collectors in compiling the records.

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phytic bacteria and lists also the following as not being infrequent.

BACTERIACEAE.

Pseudomonas pyocyanea (Gessard) Migula.

Pseudomonas violaceus (Schroeter) Migula.

Pseudomonas fluorescens (Fluegge) Migula.

PHYCOBACTERIACEAE.

Cladothrix dichotoma Cohn. In water.—Jelliffe.

BEGGIATOACEAE.

Beggiatoa alba Trev. Frequent on Long Island.—Jelliffe.

Beggiatoa mirabilis Cohn. On stalks and stones in inner harbor.—D. S. J.; H. H. Y.

SCHIZOPHYCEAE †

CHAMAESIPHONACEAE.

Chamaesiphon sp. Epiphytic on *Cladophora* sp.—D. S. J.

CHROOCOCCACEAE.

Calothrix confervicola Ag. On *Cladophora*, tide pools. Lloyd's Point, L. I.—M. L. J.

Calothrix crustacea (Schousb.) Bar. and Thur. On grasses and algae at Eatons Point, L. I.—N. M. G.

Calothrix parasitica (Chauvin) Thuret. Common on *Nemalion*.—C. S. H.; D. S. J.

Calothrix pulvinata Agardh.—C. S. H. Growing on tufts of *Spartina patens*.—D. S. J.

Calothrix scopulorum (Web and Mohr.) Ag.—C. S. H. On posts under old mill.—D. S. J.

Clathrocystis rosea—*persicina* Cohn. Salt creeks, Laurelton pier.—D. S. J.

Chröococcus turgidus (Kütz) Naeg. On *Spartina* stubble in inner harbor.—C. S. H., D. S. J. and H. H. Y.

Coelosphaerium Kutzingianum Naeg. Frequent.—Jelliffe.

Dactylocopsis raphidivides Hans. Common in Jarvis pond.—C. S. H.; N. M. G.

† This group is revised following the terminology given in "Minnesota Algae." Vol. I. Report of Survey, Botanical Series VIII., 1910, Professor Josephine Tilden, U. of Minnesota.

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- Gloietrichia natans*. Thur.—C. S. H. On submerged plants and sticks in 1st lake.—M. L. J.
Merismopaedia glauca Naeg. Not infrequent.—Jelliffe.

NOSTOCACEAE.

- Anabaena torulosa* Carm.—C. S. H. On mud among *Spartina* stalks.—D. S. J.; H. H. Y.
Anabaena variabilis Kuetz. West side inner Cold Spring Harbor.—D. S. J.
Cylindrospermum majus Kuetz. Bottom of Jarvis Pond.—C. H. S.; N. M. G.
Nostoc sp. Inner Harbor.—C.S.H.; D.S.J.
Sphaerozyga carmichaeli (Harv.) Estuary north of cement bridge.—C. S. H.; H. H. Y.
Sphaerozyga polysperma Kuetz. Vicinity C.S.H.—H.H.Y.
Sphaerozyga thuretii Cru. Vicinity C.S.H.—D.S.J.

OSCILLATORIACEAE.

- Lyngbya aeruginea caerulea* Kuetz. Frequent on Long Island.—Jelliffe.
Lyngbya aestuarii Ag. Pools in the salt meadows.—C. S. H.; N. M. G.
Lyngbya confervoides C. Agardh.—C. S. H. On mud in outlet from hatchery ponds.—D. S. J.
Lyngbya luteofusca (Ag.) J. Ag. Research wharf, C.S.H.—D. S. J.
Lyngbya nigrescens Harv. Not infrequent along coast.—Jelliffe.
Lyngbya semiplana J. Ag.—C. S. H. Mud and tangles about *Spartina*.—D. S. J.; H. H. Y.
Microcoleus sp. Old pier, C. S. H.—D. S. J.
Microcoleus chthonoplastes Thuret.—C. S. H. On mud between *Spartina* stems.—D. S. J.
Microcoleus tenerrimus Desmaz. Algal mats on marsh.—C. S. H., D. S. J. and H. H. Y.
Oscillatoria Sp. Seven incompletely identified species of this genus are found among the algal felts in Cold Spring Harbor.—D. S. J.
Oscillatoria animalis Agardh. Forming mats in first lake.—C. S. H.; D. S. J.

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- Oscillatoria formosa* Bory.—C. S. H. Floating in water in trout pool.—L. D. S.
Oscillatoria gracilima Vauch. Common in Jarvis pond.—C. S. H.; N. M. G.
Oscillatoria limosa Agarth. In mats of other *Oscillatoria* sp.—D. S. J.
Oscillatoria ornata Kuetz? Forming bright green mats in "lower pond."—C. S. H., D. S. J.
Phormidium laminosum (Agardh.) Gom. Jarvis pond.—C. S. H.; M. L. J.
Spirulina subsala Oersted.—C. S. H. On *Zostera* in inner harbor.—H. H. Y.
Spirulina thuretii Con. Laurelton Pier.—H. H. Y.

RIVULARIACEAE.

- Isactis plana* (Harvey) Thuret. Algal Felts on Marsh.—C. S. H. Inner Harbor.—D. S. J.; H. H. Y.
Rivularia atra Roth. East bank of estuary.—C. S. H.; H. H. Y.
Rivularia Sp. Inner Harbor.—C. S. H.; D. S. J.
Rivularia Nitida Agardh. North and east Shore, C. S. H., D. S. J.

II.—MYXOMYCETES.*

CERATOMYXACEAE.

- Ceratiomyxa fruticulosa* (Muell.) Macbr. On Moss.—C. S. H.; M. L. B.
Ceratiomyxa poriodes (Alb. and Schw.) Schroeter. On stump near falls second lake.—C. S. H.; D. S. J.

CLATHROPTYCHIACEAE.

- Dictydium cancellatum* (Batsch) Macbr. Abundant on Wood.—C. S. H.; D. S. J.
Enteridium splendens Morg. On rotten wood west of 1st lake.—D. S. J.

CRIBRARIACEAE.

- Cribraria aurantiaca* Schrad.—C. S. H. On rotten wood near first lake.—D. S. J.

* Revised following the terminology given in "North American Slime Molds," (new and revised edition.) T. H. MacBride, MacMillan and Company, 1922. See also papers by Burnham and Latham, (1914-24) and Reichling, G. A., (1905).

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- Cribraria languescens* Rex.—C. S. H. On rotten wood—hills west of 1st lake.—D. S. J.
- Cribraria microcarpa* Pers.—C. S. H. On rotten wood of 1st lake.—D. S. J.
- Cribraria minutissima* Schwein.—C. S. H. On rotten wood. Hills west of 1st lake.—D. S. J.
- Cribraria piriformis* Schrad. On decaying log 1st lake.—C. S. H.; D. S. J.
- Cribraria tenella* Schrad. On Long Island—Jelliffe.

DICTYOSTELIACEAE.

- Dictyostelium mucoroides* Brefeld. On muskrat dung.—D. S. J.

DIDYMIACEAE.

- Chondrioderma spumarioides* (Fries.) C. S. H. On dead leaves near 1st lake.—D. S. J.
- Diderma testaceum* (Schrad.) Rost.—C. S. H. On dead leaves near 1st lake.—D. S. J.
- Diderma effusum* (Schw.) var. *reticulatum* Rost. On L. I.—Jelliffe.
- Didymium melanospermum* (Pers.) Macbr. At head of 1st lake.—C. S. H.; D. S. J.
- Didymium nigripes* (Link.) Fries. Frequent on dead leaves.—C. S. H.; D. S. J.
- Didymium squamulosum* (Alb. and Schw.) Fries. On dead leaves at head 1st lake.—C. S. H.; D. S. J.

LICEACEAE.

- Tubulina ferruginosa* (Batsch) Mac. B. Abundant on wood.—C. S. H.; D. S. J.

PHYSARACEAE.

- Badhamia decipiens* (Cort.) Berk. On dead oak leaves.—C. S. H.; West of 2nd lake.—G. C. F.
- Badhamia lilacina* (Fr.) Rost. On growing herbs near 3rd lake.—C. S. H.; D. S. J.
- Badhamia rubiginosa* (Chev.) Rost. On L. I.—Jelliffe.
- Fuligo septica* (Linn.) Gmel. On rotten log.—C. S. H.; M. A. B.
- Leocarpus fragilis* (Dickson) Rost. Link. Occasional on mosses, dead leaves in vicinity of school house.—C. S. H.; D. S. J.

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- Physarum globuliferum* (Bull.) Pers. Occasional on wood.—
C. S. H.; D. S. J.
Physarum leucopus Link. On leaves at 1st lake.—C. S. H.;
D. S. J.
Physarum nodulosum Cke and Balf. On dead leaves near first
lake.—C. S. H.; D. S. J.
Physarum nucleatum Rex. On Long Island.—Jelliffe.
Physarum sinuosum (Bull.) Weinm. Frequent on wood, leaves
and moss.—C. S. H.; D. S. J.
Physarum tenerum Rex. Woods west of 1st lake.—C. S. H.;
D. S. J.
Physarum virescens Difm. On moss near 1st lake.—C. S. H.;
D. S. J.
Physarum viride (Bull.) Pers. On rotten sticks near 1st lake.
—C. S. H.; D. S. J.

PLASMODIOPHORACEAE.

- Hemitrichia clavata* (Pers.) Rostf. Frequent on wood.—
C. S. H.; D. S. J.
Hemitrichia vesparium (Batch.) Macbr. Common on
wood.—C. S. H.; D. S. J.
Hemitrichia stipitata (Mass.) Macbr. On rotten wood.—C. S.
H.; D. S. J.

RETICULARIACEAE.

- Reticularia lycoperdon* (Bull.) Rost. On tree near men's
dormitory.—C. S. H.; D. S. J.
Tubifera ferruginosa (Batsch) Macbr.—C. S. H. On old
stumps near Blackford hall.—M. L. B.

STEMONITACEAE.

- Comatricha caespitosa* Sturgis.—Jelliffe.
Comatricha longa Peck. On rotten wood.—C. S. H.; D. S. J.
Comatricha lurida List. On L. Island.—Jelliffe.
Comatricha nigra. (Pers.) Schroeter. On wood west of 1st
lake.—C. S. H.; D. S. J.
Comatricha typhoides (Bull.) Rost.—C. S. H. On old logs in
lake region.—M. L. B.
Diachea elegans Fries. On Long Island.—Jelliffe.
Enerthenema papillatum (Pers.) Rost.—C. S. H. On rotten
wood west of 1st lake.—D. S. J.

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- Lamproderma arcyryonema* Rost. On rotten wood.—C. S. H.;
D. S. J.
Stemonitis fusca (Roth.) Rost. Abundant on wood.—C. H. S.;
D. S. J.
Stemonitis pallida Wingate. On old wood.—C. S. H.; D. S. J.
Stemonitis smithii Macbr.—C. S. H. On rotten wood by 1st
lake.—N. M. G.
Stemonitis splendens Rost.—C. S. H. On rotten wood in
swamp by lakes.—M. L. J.

TRICHIACEAE.

- Arcyria ferruginea* Sauter.—C. S. H. On rotten wood, hill
west of 1st lake.—D. S. J.
Arcyria denudata (Linn.) Sheldon. Very common on wood.
—C. S. H.; D. S. J.
Arcyria incarnata (Pers.) Macbr. On rotten wood.—C. S. H.;
M. L. B.
Arcyria nutans (Bull.) Grev. On rotten wood west of 1st lake
—C. S. H.; D. S. J.
Hemiarcyria clavata (Pers.) Rost. Woods west of 1st lake.
C. S. H.; N. M. G.
Hemiarcyria rubiformis (Pers.) Rost. Cold Spring Harbor
vicinity.—D. S. J.
Lachnobolus globosus (Schw.) Rost. Frequent on rotten
wood.—C. S. H.; D. S. J.
Lycogola epidendrum (Buxb.) Av. In old woods, south side
Long Island.—M. L. B.
Trichia persimilis Karst. Occasional on wood. C.S.H.—D.S.J.

III.—FLAGELLATAE.*

EUGLENACEAE.

- Euglena viridis* Ehrb. C. S. H.—N. M. G.
Euglena spirogyra Ehrb. C. S. H.—N. M. G.
Peranema trichophorum Ehrb. 2nd lake. C.S.H.—L.N.J.
Phacus triqueter Ehrb. C. S. H.—A. A. Schaeffer.
Phacus longicauda Ehrb. C. S. H.—A. A. Schaeffer.
Trochelomonas hispida Stein. C. S. H.—A. A. Schaeffer.
Trochelomonas volvocina Ehrb. C. S. H.—A. A. Schaeffer.

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OCHROMONADACEAE.

Dinobryon sp. 1st lake, C. S. H.—L. N. J.

Uroglena rotrova Ehrb., 2nd lake, C. S. H.—L. N. J.

IV.—DINOFLAGELLATAE.*

GYMNODINIACEAE.

**Gymnodinium gracile* (Bergh.)—C. J. Fish.

Gymnodinium sp. C. S. H.—N. M. G.

PERIDINIACEAE.

Ceratium tripos Nitzsch. C. S. H.—D. S. J.

**Ceratium longipes* (Nitzsch) Bail.—H. B. Bigelow and C. J. Fish.

**Ceratium fusus* (Nitzsch) Duj.—H. B. Bigelow and C. J. Fish.

**Ceratium macroceras* (Nitzsch) Ehrb.—H. B. Bigelow and C. J. Fish.

**Ceratium bucephalum* (Nitzsch) Cl.—H. B. Bigelow and C. J. Fish.

**Ceratium heterocamptum* (Nitzsch)—H. B. Bigelow and C. J. Fish.

Dinophysis caudata Kent, C. S. H.—N. M. G.

**Glenodinium compressa* Calkins—C. J. Fish.

**Gonyaulax tricantha* Jorg.—C. J. Fish.

**Peridinium depressum* Bailey—C. J. Fish.

**Peridinium oceanicum* var. *oblongum* Aurivillius—C. J. Fish.

Peridinium sp.—C. S. H.—N. M. G.

SILICOFLAGELLATAE.

Distephanus speculum Haeckel—C. J. Fish.

Dictyocha fibula Ehrb.—C. J. Fish.

* Species starred are those normally a part of the plankton of the adjoining regions, and under varying conditions may be found in Cold Spring Harbor. I am indebted to Dr. C. J. Fish of the U. S. Bureau of Fisheries, Woods Hole, Mass., and Dr. H. B. Bigelow, Museum of Comparative Zoology, Harvard College, Cambridge, Mass., for the data they have supplied.

* Nomenclature revised provisionally by Professor C. A. Kofoid, University of California for whose cooperation the writer desires to express his appreciation.

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V.—BACILLARIOPHYTA, (*Diatoms*)*

ACHNANTHOIDEAE.

Cocconeis pediculus Ehrb. Frequent throughout island.—Jelliffe.

Cocconeis scutellum Ehrb. On *Zostera* in Inner Harbor.—C. S. H.; D. S. J.

DISCOIDEAE

Gaillonella nummuloides (Dilw.) Bory. On *Zostera* in Inner Harbor.—C. S. H., D. S. J. and H. H. Y.

Lysigonium moniliforme (Muell.) Link. On *Zostera* in Inner Harbor.—C. S. H., D. S. J. and H. H. Y.

Meloseira granulata (Ehrb.) Kuetz. Fossil.—C. S. H.; D. S. J.

FRAGILAROIDEAE.

Asterionella formosa (Hass.) Fr. Frequent throughout island.—Jelliffe.

Diatoma hiemale (Lyngb.) Heiberg. Frequent Long Island.—Jelliffe.

Diatoma vulgare Bory. Common in second lake.—C. S. H.; N. M. G.

Eunotia lunaris (Ehrb.) Grün. Frequent throughout Long Island.—Jelliffe.

Fragillaria capucina Desmaz. Common throughout the island.—Jelliffe.

Fragillaria virescens Ralfs. Common in second lake.—C. S. H.; N. M. G.

Synedra affinis Kuetz. On *Zostera* Inner Harbor.—C. S. H.; D. S. J. and H. H. Y.

Synedra pulchella (Ralfs.) Kuetz. Common throughout the Island.—Jelliffe.

Synedra radians Kuetz. In second lake.—C. S. H. Common.—N. M. G.

Synedra ulna (Nitsch) Ehrb. Second lake.—C. S. H. Common.—N. M. G.

Rhabdonema Adriaticum Kuetz. Not infrequent throughout coast.—Jelliffe.

Tabellaria fenestrata Kuetz. Frequent in fresh water.—Jelliffe.

Tabellaria flocculosa (Roth) Kuetz. Second lake.—C. S. H. Common.—N. M. G.

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NAVICULOIDEAE.

Amphipleura sp. On *Zostera* Inner Harbor.—C.S.H.; N.M.G.

Amphora ovalis (Breb.) Kuetz. Frequent.—Jelliffe.

Gomphonema constrictum Ehrb. Common in second lake.—

C. S. H.; D. S. J.

Navicula viridis Kuetz. Frequent throughout island.—Jelliffe.

Pleurosigma angulatum (Quek) Cl. Mud, pebbles, etc.—C. S.

H.; D. S. J.

Neidium affine (Ehr.) Pfitzer. Common in second lake.—C.

S. H.; D. S. J.

Navicula cuspidata Kuetz. Common throughout island.—Jelliffe.

Navicula grevillei (Ag.) Cl. On *Zostera* Inner Harbor.—C.

S. H.; N. M. G.

Navicula Kennedyi W. Sm. On *Zostera* Inner Harbor.—C. S.

H.; H. H. Y.

Navicula Lyra Ehrb. Not infrequent around coast.—Jelliffe.

Navicula major Kuetz. Common in second Lake.—C. S. H.;

D. S. J.

Gyrosigma Balticum (Ehr.) Cl. Not infrequent in salt marshes, throughout island.—Jelliffe.

Pleurosigma distortum W. Sm. Mud, pebbles, etc.—C. S. H.;

D. S. J.

SURIRELLOIDEAE

Surirella elegans Ehrb. Not infrequent throughout island.—Jelliffe.

* Revised according to Van Huerck's "Treatise on the Diatomaceae" with some reference to "The Diatomaceae of Philadelphia and Vicinity."—C. S. Boyer, Philadelphia, 1916. J. B. Lippincott Company.

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The following species of diatoms, normally part of the plankton of adjoining regions may under varying conditions be found in Cold Spring Harbor, according to Bigelow* and Fish.**

BIDDULPHIOIDEAE.

- Bacteriastrum delicatulum* (Cleve)—C. J. Fish.
Bacteriastrum sp.—H. B. Bigelow.
Bellerochea malleus (Brightw.)—C. J. Fish.
Biddulphia alterans (Bailey) v. H.—C. J. Fish.
Biddulphia favus (Ehrb.) v. H.—C. J. Fish.
Biddulphia granulata (Roper)—C. J. Fish.
Biddulphia biddulphiana (Smith)—C. J. Fish.
Biddulphia rhombus (Ehrb.)—C. J. Fish.
Biddulphia vesiculosa (Agard.)—C. J. Fish.
Chaetoceros atlanticum (Cleve)—C. J. Fish.
Chaetoceros boreale (Schütt.)—C. J. Fish.
Chaetoceros cinctum (Gran)—C. J. Fish.
Chaetoceros coarctatum (Lauder)—C. J. Fish.
Chaetoceros contortum (Schütt.)—C. J. Fish.
Chaetoceros eriophilum (Castr.)—C. J. Fish.
Chaetoceros danicum (Cleve)—C. J. Fish.
Chaetoceros debile (Cleve)—C. J. Fish.

*1912. Bigelow, H. B. Exploration of the coastal water of the N. E. United States in 1916 by the U. S. Fisheries Schooner *Grampus*. Bull Mus. Com. Zoology at Harvard College. Vol. LXV., No. 5.

**Fish., C. J. Seasonal Distribution of the Plankton of the Woods Hole Region. U. S. Bureau of Fisheries. Document No. 975.

The results of a Biological Survey of the Waters of Long Island Sound by Dr. P. S. Galtsoff are in preparation and will be published by the U. S. Bureau of Fisheries. This publication will probably add to the forms to be expected in the vicinity of Cold Spring Harbor.

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- Chaetoceros decipiens* (Cleve)—C. J. Fish.
Chaetoceros densum (Cleve)—C. J. Fish.
Chaetoceros diadema (Ehrb.)—C. J. Fish.
Chaetoceros didymum (Ehrb.)—C. J. Fish.
Chaetoceros lacinosum (Schütt.)—C. J. Fish.
Chaetoceros lorenzianum (Gran)—C. J. Fish.
Chaetoceros mitra (Bailey)—C. J. Fish.
Chaetoceros peruvianum (Brightw.)—C. J. Fish.
Chaetoceros schüttii (Cleve)—C. J. Fish.
Chaetoceros teres (Cleve)—C. J. Fish.
Chaetoceros willei (Gran)—C. J. Fish.
Chaetoceros sp.—H. B. Bigelow and C. J. Fish.
Climacodium biconcavum Cl.—H. B. Bigelow.
Ditylium brightwelli (West)—C. J. Fish.
Ditylium sp.—C. S. H. vicinity—N. M. G.

DISCOIDEAE.

- Actinoptychus undulatus* (Kuetz) Ralfs—C. J. Fish.
Coscinodiscus sp.—H. B. Bigelow.
Coscinodiscus subbulliens (Ehrb.)—H. B. Bigelow.
Hyalodiscus stelliger (Bailey)—C. J. Fish.
Lysigonium moniliforme (Muell.)—Link.
Melosira sulcata (Kuetz)—C. J. Fish.
Skeletonema costatum (Grev.)—C. J. Fish.
Stephanopyxis Turris (Grev.) Ralfs—C. J. Fish.
Stephanopyxis sp.—H. B. Bigelow.
Thalassiosira decipiens (Grun)—C. J. Fish.
Thalassiosira hyalina (Grun)—C. J. Fish.
Thalassiosira nordenskiöldii (Cleve)—C. J. Fish.

FRAGILLARIOIDEAE.

- Asterionella japonica* (Cleve)—H. B. Bigelow and C. J. Fish.
Fragilaria crotonensis (M. Edwards)—C. J. Fish.
Grammatophora marina (Lyngb.) Kuetz.—C. J. Fish.
Grammatophora serpentina (Ehrb.)—C. J. Fish.
Licmophora flavellata (Smith)—C. J. Fish.
Licmophora lyngbyei (Kütz) Grun.—C. J. Fish.
Rhabdonema adriaticum (Kütz)—C. J. Fish.
Striatella unipunctata (Lyngby) Ag.—C. J. Fish.
Synedra gallionii (Boyer)—C. J. Fish.

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Synedra undulata (Bailey)—C. J. Fish.

Thalassiothrix frauenfeldii (Grun)—C. J. Fish, H. B. Bigelow.

Thalassiothrix longissima (Cleve and Grun)—C. J. Fish and
H. B. Bigelow.

Thalassiothrix nitzschoides (Grun)—C. J. Fish and H. B.
Bigelow.

NAVICULOIDEAE.

Nitzschia closterium (Smith)—C. J. Fish.

Nitzschia longissima (Breb.) Ralfs—C. J. Fish.

Nitzschia paxillifer (O. F. Mueller) Heiberg—C. J. Fish.

Nitzschia seriata (Cleve)—H. B. Bigelow and C. J. Fish.

SOLENOIDEAE.

Corethron valdiviae (Karstan)—C. J. Fish.

Guinardia sp.—H. B. Bigelow.

Guinardia flaccida (Castr.)—C. J. Fish.

Leptocylindrus danicus (Cleve)—C. J. Fish.

Rhizoselenia alata (Brightw.)—H. B. Bigelow.

Rhizoselenia alata f. *genuina* (Gran)—C. J. Fish.

Rhizoselenia alata f. *gracillima* (Cleve)—C. J. Fish.

Rhizoselenia calcar-avis (Schultze)—H. B. Bigelow.

Rhizoselenia delicatula (Cleve)—H. B. Bigelow.

Rhizoselenia faeroeensis (Ostf.)—H. B. Bigelow.

Rhizoselenia hebetata var. *semispina* (Hensen)—H. B. Bigelow.

Rhizoselenia obtusa (Henson)—H. B. Bigelow.

Rhizoselenia setigera (Brightw.)—H. B. Bigelow.

Rhizoselenia shrubsolei (Cleve)—H. B. Bigelow.

Rhizoselenia styliiformis (Brightw.)—H. B. Bigelow.

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VI.—CONJUGATAE.*

DESMIDIACEAE.

- Arthrodesmus convergens* Ehrb. Common in second lake.
C. S. H.—L. N. J.
- Arthrodesmus fragilis* Wolle. Common in second lake, C.
S. H.—L. N. T.
- Cosmarium Everettense* Wolle. Common in second lake, C.
S. H.—L. N. J.
- Cosmarium ornatum* Ralfs. Common in second lake, C. S. H.
—N. M. G.
- Cosmarium ovale* Ralfs. Common in second lake, C. S. H.—
L. N. J.
- Cosmarium tetropthalmum* (Kg.) Common in second lake,
C. S. H.—L. N. J.
- Desmidium baileyi* (Ag.) Ralfs. Common in second lake,
C. S. H.—L. N. J.
- Euastrum verrucosum* (Ehrb.) Ralfs. Common in second
lake, C. S. H.—L. N. J.
- Hyalotheca dissiliens* var. *apiculata* Ehrb. (Breb.) Common
in second lake, C. S. H.—L. N. J.
- Micrasterias fimbriata* (Ralfs.) Nordst. Common in second
lake, C. S. H.—L. N. J.
- Micrasterias laticeps* Nord. Second lake, C. S. H.—N. M. G.
- Micrasterias muricata* Bailey. Second lake, C.S.H.—L.N.J.
- Micrasterias radiata* Hass. Common in second lake, C. S. H.
—L. N. J.
- Micrasterias Sol* (Ehr.) Kuetz. Common in second lake, C.
S. H.—L. N. J.
- Netrium digitus* (Ehr.) Itzigs and Rothe. Common in second
lake, C. S. H.—N. M. G.
- Penium libellula* (Focke) Nordst. Frequent, Long Island—
Jelliffe.
- Spondylosium tetragonum* West. Second lake, C.S.H.—L.N.J
- Staurastrum crenulatum* (Naeg.) Delp. Second lake, C. S. H.
L. N. J.
- Staurastrum crenulatum* (Naeg.) Delp. Second lake, C. S. H.
—N. M. G.
- Staurastrum cuspidatum* Breb. Second lake, C.S.H.—L. N. J.
- Staurastrum gracile* Ralfs. Second lake, C. S. H.—L. N. J.

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Staurastrum pentacladium Wolle. Second lake, C. S. H.—
L. N. J.

Staurastrum tohopekaligense Wolle. Second lake, C. S. H.—
L. N. J.

Staurastrum vestitum Ralfs. Second lake, C. S. H.—L.N.J

MESOTAENIACEAE.

Closterium didymoticum Corda. Second lake, C. S. H.—N.
M. G.

Closterium moniliferum (Broy.) Ehrb. Second lake, C. S.
H.—L. N. J.

Gymnozyga moniliformis Ehr. Second lake, C. S. H.—L. N. J.

Spirotaenia condensata Breb. Second lake, C. S. H.—L. N. J.

ZYGNEMATACEAE.*

Spirogyra orthospira (Naeg.) Second lake, C. S. H.—L. N. J.
Spirogyra mirabile, (Hass) Kuetz. Jarvis Pond, C. S. H.—
L. N. J.

Spirogyra varians (Hass) Kuetz. Fish Hatchery Pond, C. S.
H.—E. N. T.

Zygnema cruciatum (Vauch.) Agardh. Glen Cove, L. I.
—Jelliffe.

Zygnema pectinatum (Vauch.) Agardh. 1st Lake, C. S. H.
—L. N. J.

Zygnema stellinum, Ag. (Muell.) Agardh. Second lake, C.
S. H.—L. N. J.

Other CONJUGATAE listed by Jelliffe as being frequent
throughout the island in pond, etc., are (Desmidiaceae.)

Arthrodesmus Incus (Breb.) Hass.

Cosmarium botrytis Menegh.

Cosmarium Dianae Ehrb.

Cosmarium moniliforme (Turp.) Ralfs.

Cosmarium subcostatum (Nordst.) var. *Beckii* Gutw.

Euastrum ansatum Ralfs.

* Revised following principally the nomenclature given in "British Desmidiaceae" Vol. I-IV. W. West and G. S. West, Vol. V. Nellie Carter. London, 1905, 1908, 1909, 1912 and 1923. Published by the Ray Society.

Revised following Collins, '09-'18.

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Micrasterias Americana (Ehrb.) Ralfs.

Micrasterias Torreyi Bailey.

Staurastrum aristiferum Ralfs.

Staurastrum brachiatum Ralfs.

Staurastrum brevispinum Breb.

Staurastrum dejectum Breb.

Staurastrum hirsutum (Ehrb.) Breb.

Staurastrum polymorphum Breb.

Staurastrum punctulatum Breb.

Staurastrum Sebaldi Reinsch.

Xanthidium cristatum Breb.

MESOTAENIACEAE.

Closterium Dianae Ehrb.

Closterium Ehrenbergii Menegh.

Closterium gracile Ehrb.

Closterium striolatum Ehrb.

Closterium rostratum Ehrb.

Docidium crenulatum (Ehrb.) Rab.

Pleurotaenium Ehrenbergii (Ehrb.) Naeg.

Closterium Lunula (Muell.) Ehrb.

VII.—CHLOROPHYCEAE.*

BOTRYDIACEAE.

Botrydium granulatum (L.) Grev. Meadows south of lakes,
C. S. H.—N. M. G.

BRYOPSIDACEAE.

Bryopsis plumosa (Huds.) Agardh. Occasional on rocks and
wharves at mouth of harbor, C. S. H.—D. S. J.

Chaetomorpha aerea (Dillw.) Kuetz. Bottom of harbor, C.
S. H.—D. S. J.

Chaetomorpha aerea forma *linum* (Fl. Dan.) Collins. Inner
Harbor near sandspit, C. S. H.—N. M. G.

Rhizoclonium riparium (Roth) Harvey. Stones, mats, on
Spartina, in brookish water, C. S. H.—H. H. Y.

Rhizoclonium tortuosum Kuetz. Mats and tangles on mud.
brackish water, C. S. H.—D. S. J. and H. H. Y.

Rhizoclonium sp. Two species, old pier, mud, C. S. H. —
D. S. J.

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CHAETOPHORACEAE.

- Chaetophora* sp. In fish boxes near church at 1st lake, C. S. H.—H. H. Y.
Chaetophora pisiformis (Roth) Ag. On *Fontinalis* at mill race from near lower pond, C. S. H.—D. S. J.
Draparnaldia plumosa (Vauch.) Ag. Fish Hatchery pond—E. N. T.
Draparnaldia glomerata (Vauch) Ag. In pools, quite commonly distributed—Jelliffe.

CLADOPHORACEAE.

- Cladophora expansa* (Mert) Kuetz. Inner Harbor near the tide run.—N. M. G.
Cladophora fracta (Dillw.) Kuetz. Shoals at inner end of Center Island.—G. C. F.
Cladophora gracilis (Griff.) Kuetz. Laurelton pier.—H. H. Y.
Spongomorpha arcta (Dillw.) Kuetz. Common throughout L. I.—Jelliffe.
Spongomorpha lanosa (Roth) Kuetz. Not infrequent in Long Island Sound.—Jelliffe.

COELASTRACEAE.

- Scenedesmus obliquus* (Turp.) Kuetz. 2nd Lake, C. S. H.—N. M. G.
Scenedesmus obliquus (Turp) var. *dimorphus* Hans. Frequent on L. I.—Jelliffe.
Scenedesmus quadricauda (Turp.) Bres. 2nd Lake, C. S. H.—N. M. G.

HYDRODICTYACEAE.

- Pediastrum Boryanum* (Turpin) Fish Hatchery pond, C. S. H.—E. N. T.
Pediastrum tetras (Ehr.) Ralfs. 2nd Lake, C.S.H.—N.M.G.

* Revised following nomenclature given in "The Green Algae of North America" F. S. Collins, Tufts College Studies, Scientific Series. Vol. 2, 3, 4. Additional publications used in making identifications in this and folloiwng two groups: were "Marine Algae of New England" W. C. Farlow. Report U. S. Commissioner of Fish and Fisheries for 1879, Washington. "Marine Algae at Beaufort, N. C., and Adjacent Regions." W. D. Hoyt. Bulletin U. S. Bureau of Fisheries, Vol. 36, 1917-18. See also Sumner, Osborne, Cole and Davis, (1913).

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Pediastrum duplex (Meyen) Kg. 2nd Lake, C.S.H.—N.M.G.
Hydrodictyon utriculatum Roth. Frequent throughout L. I.
—Jelliffe.

OEDOGONIACEAE.

Oedogonium crassiusculum, var. *Idios* Wittr. Dying pond, C.
S. H.—E. N. T.
Oedogonium grande Kg. Fish Hatchery pond, C. S. H.—E.
N. T.
Oedogonium Pringsheimii Cram. On *Ceratophyllum* in 1st
Lake, C. S. H.—D. S. J.
Oedogonium rufescens var. *exiguum* Wittr. Dying pond, C.
S. H.—E. N. T.

PLEUROCOCCEAE.

Pleurococcus vulgaris Menegh., C. S. H. vicinity—N. M. G.
Stichococcus bacillaris. Naeg., C. S. H. vicinity—D. S. J.

PROTOCOCCEAE.

Palmellococcus miniatus (Leib) Chodat, C.S.H.—N.M.G.
Zoochlorella parasitica (Beyer) Brandt. On fresh water
sponge in dying pond, C. S. H.—E. N. T.

TETRASPORACEAE.

Dictyosphaerium Ehrenbergianum Naeg. Frequent.—Jelliffe
Kirchnerella lunaris (Kirchner) Moebius. Frequent, L. I.—
Jelliffe.
Rhaphidium falcatum (Cooke) var. *aciculare* (A. Br.) Hans.
C. S. H.—E. N. T.
Tetraedron regulare var. *longispinum* (Perty) Hansy. Fre-
quent. L. I.—Jelliffe.
Tetraspora lubrica (Roth) Ag. Frequent throughout L. I.
—Jelliffe.

ULVACEAE.

Enteromorpha plumosa Kuetz. Near Laurelton pier.—H.H.Y.
Enteromorpha prolifera (Fl. Dan.) J. Ag. Estuary, C. S. H.
—D. S. J.
Ilea fulvenscens (Ag.) J. G. Ag. Estuary, C. S. H.—N. M. G.
Monostroma crepidinum Farl. Estuary, C. S. H.—D. S. J.
Monostroma latissimum (Kuetz) Wittr. Fresh water inlets,
C. S. H.—H. H. Y. and D.S.J.

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Monostroma pulchrum Farlow. Frequent.—Jelliffe.

Ulva Laciuca. (L.) var. *latissima* Le Jolis. On muddy bottom, C. S. H.—D. S. J.

VALONIACEAE.

Dictyocystis Hitchcockii (Wolle) Lag. Common bottom 2nd Lake, C. S. H.—N. M. G.

VAUCHERIACEAE.

Vaucheria sessilis (Vauch) De Cond. In springs and pools back of school house, C. S. H.—D. S. J.

Vaucheria Thuretii Wor. Near fresh water inlets, wet areas near tide pools, C. S. H.—D. S. J.

VOLVOCACEAE.

Chlamydomonas sp. Common—Jelliffe.

Gonium pectorale Muell. Frequent throughout the island.—Jelliffe.

Haematococcus pluvialis (Flotow) Sommerf. Common throughout.—Jelliffe.

Pandorina Morum (Muell.) Bory. C. S. H.—D. S. J.

Volvox aureus Ehr. Ponds, C. S. H.—E. N. T.

Volvox globator L. Not infrequent. Local.—Jelliffe.

VIII.—CHAROPHYTA.

CHARACEAE.

†*Chara formosa* C. B. Robinson. Southold, L. I.—Burnham and Latham.*

†*Nitella flexilis* Ag. Southold, L. I.—Burnham and Latham.

†*Nitella intermedia* L. Southold, L. I.—Burnham and Latham.

†*Nitella transilis* Allen Southold, L. I.—Burnham & Latham.

Nitella sp. Dying Pond. Cold Spring Harbor.—O. E. J.

IX.—PHAEOPHYCEAE.*

CHORDARIACEAE.

Chorda Filum (L) Stack. Frequent on stones at Lloyd's Point, L. I.—D. S. J.

* *Torreya* 23.

† These species may be expected to appear at Cold Spring Harbor.

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DESMERESTIACEAE.

Desmerestia viridis (Fl. Dan.) Lamx. Common throughout sound.—Jelliffe.

DICTYOSIPHONACEAE.

Dictyosiphon foeniculasius (Huds.) Grev. Not infrequent along coast.—Jelliffe.

ECTOCARPACEAE.

Ectocarpus confervoides (Roth) Le Jolis. C. S. H.—D. S. J.

Ectocarpus fasciculatus, Harvey. Not infrequent on L. I.
—Jelliffe.

Ectocarpus siliculosus (Dillw.) Ag. Sticks, stones, inner harbor, C. S. H.—D. S. J.

Ectocarpus tomentosus Lyngb., C. S. H.—D. S. J.

Elachistea fucicola (Valley) Fries. Long Island Sound.—
N. M. G.

Leathesia difformis (L) Aresch. Occasional on *Fucus* at Lloyd's Point, L. I.—D. S. J.

Mesogloia divaricata (Ag.) Kuetz. Common flats inner harbor, C. S. H.—D. S. J.

Myrionema vulgare. Thur. L. I. Sound, stone pier, C. S. H.
—N. M. G.

Myriotricha filiformis. Harv. Tide stream, Center Island growing on *Zostera*.—G. C. F.

Pylaiella littoralis (L) Kjell. Inner harbor, inlet on sticks and stones.—D. S. J. and H. H. Y.

Scytosiphon lomentarius (Lyngb.) J. Ag. Inner harbor, C. S. H.—D. S. J. and H. H. Y.

Stilophora rhizoides (Ehrb.) J. Ag. Long Island Sound.—
Jelliffe.

Streblonema reptans (Crouan) Farlow. C. S. H.—D. S. J.

ENCOELIACEAE.

Punctaria latifolia Grev. Common throughout L. I.—Jelliffe.

Punctaria plantaginea (Roth) Grev. Not infrequent on L. I.
—Jelliffe.

* Manuscript of this group and of the Rhodophyceae revised by Professor I. F. Lewis of the Marine Biological Laboratory, Woods Hole, Mass., and the University of Virginia to whom my thanks are due.

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Petalonia fascia (Mueller) Kuetz. Common throughout coast—Jelliffe.

FUCACEAE.

Ascophyllum nodosum (L) Le Jolis. Common on rocks, outer and inner harbor, C. S. H.—D. S. J.

Fucus evanescens Ag. Common on rocks, C. S. H.—D. S. J.

Fucus platycarpus Thuret. Stones, piles, docks, inner harbor.—D. S. J.

Fucus vesiculosus (L). Common on rocks inner and outer harbor.—D. S. J.

Fucus vesiculosus (L) var. *spiralis* Farlow. C. S. H., Lloyd's Pt., L. I.—D. S. J.

Sargassum bacciferum (Turn.) J. Ag. Washed ashore throughout L. I.—Jelliffe.

Sargassum filipendula Ag. Frequent on rocks at Lloyd's Pt., L. I.—D. S. J.

LAMINARIACEAE.

Laminaria Agardhii Kjell. Found all along coast, L. I.—Jelliffe.

RALFSIACEAE.

Ralfsia Bornetii Kuckuck. Reported from Connecticut.—I. F. Lewis.

Ralfsia clavata (Carm.) Farlow. Piles, docks, inner harbor, C. S. H.—D. S. J. and H. H. Y.

Ralfsia verrucosa Aresch. Reported from Connecticut.—I. F. Lewis.

SPHACELARIACEAE.

Sphacelaria cirrhosa (Roth) Ag. Common on *Fucus* in Sound.—D. S. J.

Sphacelaria radicans (Dillw.) Ag. Dredged near lighthouse, C. S. H.—D. S. J.

STRIARACEAE.

Striaria attenuata Grev. Not infrequent on L. I. Sound.—Jelliffe..

X.—RHODOPHYCEAE.

BANGIACEAE.

Bangia ceramicola Chauv. Occasional on *Ceramium*. C. S. H.—D. S. J.

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Bangia fusco-purpurea (Dillw.) Lyngb. Common throughout on piling.—Jelliffe.

Porphyra Laciniata (Lightf.) Ag. Common on stones, tidal inlets, C. S. H.—D. S. J.

CERAMIACEAE.

Antithamnion americanum (Herv.) Farlow. Lloyd's Point, L. I.—N. M. G.

Antithamnion cruciatum (Ag.) Naeg. On rocks Lloyd's Point, L. I.—N. M. G.

Callithamnion Borreri (Eng. Bot.) Harv. Common throughout.—Jelliffe..

Professor Lewis states this species is not recognized as occurring on the New England Coast, and that the species meant it is possibly *C. corymbosum* (Eng. Bot.) Ag.

Callithamnion Baileyi, Harv. Common throughout.—Jelliffe.

Callithamnion byssoideum Arn. Not infrequent throughout.—Jelliffe.

Callithamnion roseum (Roth) Harvey, Lloyd's Pt. L. I. Tidal inlets, C. S. H.—D. S. J.

Ceramium circinnatum Kuetz. Glen Cove, L. I.—Jelliffe.

Ceramium fastigiatum Harv. Not infrequent in L. I. Sound.—Jelliffe.

Ceramium rubrum (Huds.) Ag. On rocks Eaton's Point, abundant on *Zostera* off sandspit.—N. M. G.

Ceramium rubrum var. *proliferum*, Harvey, Eaton's Point, L. I.—N. M. G.

Ceramium rubrum (Kuetz.) Harv. Common on *Zostera*, C. S. H.—D. S. J.

Ceramium tenuissimum (Lyngb.) J. Ag. Common throughout sound.—Jelliffe.

Griffithsia globifera (Harv.) J. Ag. Occasional on rocks at Lloyd's Pt., L. I.—D. S. J.

Plumaria elegans (Bonnem) Schmitz, Common throughout.—Jelliffe.

Seirospora Griffithsiana, Harv. Not infrequent throughout.—Jelliffe.

Spermothamnion Turneri (Mert.) Aresch. Not infrequent in Sound and harbors south shore.—Jelliffe.

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Spyridia flamentosa (Wolf.) Harv. Near Laurelton, L. I.—
N. M. G.

CORALLINACEAE.

Melobesia farinosa Lam. Glen Cove, Greenport, L. I.—Jelliffe.

DELESSERiaceae.

Caloglossa Le prieurii (Mont.) J. G. Ag. Inner harbor, Tidal
Inlet, C. S. H.—D. S. J.

Grinnellia americana (Ag.) Harv. Common inner harbor,
C. S. H.—D. S. J.

GELIDIACEAE.

Gelidium crinale (Turn) J. Ag. On rocks, Lloyd's Point,
L. I.—D. S. J.

Hildenbrandtia Prototypus Nardo. Inner harbor, Tidal Inlet,
C. S. H.—D. S. J.

Hildenbrandtia rosea Kuetz. Common on stones, pebbles, C.
S. H.—D. S. J.

GIGARTINACEAE.

Ahnfeltia plicata (Turn) Fries. On rocks, shells, Lloyd's Pt.,
L. I.—D. S. J.

Chondrus crispus (L) Stack. Common on rocks at Lloyd's
Pt., L. I.—D. S. J.

Phyllophora membranifolia (Good and Wood) J. Ag., C. S.
H. vicinity.—N. M. G.

HELMINTHOCLADIACEAE.

Batrachospermum moniliforme (Roth). Frequent fresh water.
—Jelliffe.

Chantransia virgatula (Harv.) Thur. Dredged near light-
house, C. S. H.—D. S. J.

Nemalion multifidum (Web and Mohr) J. Ag. Frequent
Lloyd's Pt.—D. S. J.

RHODOMELACEAE.

Bostrychia rivularis Harv. On wood, stones, C. S. H.—H.
H. Y.

Chondria atropurpurea Harv. Glen Cove, L. I.—Jelliffe.

Chondria dasyphylla (Woodw.) Ag. On rocks Lloyd's Pt.—
D. S. J.

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- Chondria tenuissima* (Good and Woodw.) Ag. var. *baileyana* J. Ag.—D. S. J. and J. Ag. On rocks Lloyd's Pt., inner harbor tidal inlet.—H. H. Y.
- Dasya elegans* (Mart) Ag. On rocks, inner harbor, tidal inlet, C. S. H.—D. S. J.
- Polysiphonia fastigiata* (Roth) Grau? Glen Cove, L. I.—Jelliffe.
- Polysiphonia Harveyi*, Bailey. Not infrequent, L. I. Sound.—Jelliffe.
- Polysiphonia nigrescens* (Dillw.) Grev. Common along coasts.—Jelliffe.
- Polysiphonia Olneyi*, Harv. Eaton's Neck, L. I.—H. H. Y. and D. S. J.
- Polysiphonia urceolata* (Lightf.) Grev. Common on coasts. Jelliffe.
- Polysiphonia variegata* (Ag.) Zan. Eaton's Point, Sandspit, C. S. H.—D. S. J.
- Rhodomela subfusca* (Woodw.) Ag. Not infrequent on coasts.—Jelliffe.

RHODOPHYLLIDACEAE.

- Agardhiella tenera* (J. Ag.) Schmitz, C. S. H. vicinity.—D. S. J.
- Cystoclonium purpurascens* (Huds.) Kuetz Common throughout.—Jelliffe.
- Euthora cristata* (L) J. Ag. Infrequent throughout coast.—Jelliffe.

RHODYMENIACEAE.

- Champia parvula* (Ag.) Harv. Occasional on rocks, Lloyd's Pt., L. I.—D. S. J.
- Halosaccion ramentaceum* (L) J. Ag. Not infrequent along coast.—Jelliffe.
- Lomentaria uncinata* Menegh. Sandspit, C. S. H.—N. M. G.
- Rhodymenia palmata* (L) Grev. Not infrequent along coast.—Jelliffe.

SPHAEROCOCCACEAE.

- Gracilaria multipartita* (Clem) Ag. Common along coasts.—Jelliffe.

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SQUAMARIACEAE.

Petrocelis cruenta J. Ag. Inner harbor, Tidal Inlet—D. S. J. and H. H. Y.

Peyssonellia Rosenvingii Schmitz. C. S. H. Vicinity on pebbles, shells.—D. S. J.

XI.—EUMYCETES.*

PHYCOMYCETES.

ALBUGINACEAE.

Albugo portulacae (DC) O. Kuetz. On *P. oleracea* in gardens, C. S. H.—A. F. B.

Cystopus candidus (P.) Lev. On *Sisymbrium officinale* by roadsides, C. S. H.—M. A. B.

ANCYLISTACEAE.

Ancylistes closterii Pfitzer. Parasitic on *Closterium*, C. S. H.—N. M. G.

MUCORACEAE.

Calyptromyces ramosus Karst. Not infrequent on Long Island.—Jelliffe.

Mucor Mucedo (L.) Ehr. Frequent.—Jelliffe.

Phycomyces nitens (Agard.) Kuetz. Growing on dung in woods, C. S. H.—A. F. B.

Syzygites aspergillus (Scop.) Pound. Center Island.—N. M. G.

PERONOSPORORACEAE.

Peronospora parasitica (Pers) Fries. On *Lepidium virginicum*, C. S. H.—A. F. B.

SYNCHYTRIACEAE.

Synchytrium decipiens Farlow. Common on *Amphicarpa monoica*, C. S. H.—A. F. B.

*I am indebted to Dr. A. H. Graves, Brooklyn Botanic Garden, for revision of this list with regard to its most convenient use, according to Saccardo's "Sylloge Fungorum," Oudemans' "Enumeratio Systematica Fungorum, and Engler and Prantl.

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ASCOMYCETES.

ASCOBOLACEAE.

Ascophonus carneus (Pers) Boud. On dung at Lloyd Neck.
—N. M. G.

Ascobolus stercorarius (Bull.) Schr. On cowdung at 1st lake
—A. F. B.

ASPERGILLACEAE.

Aspergillus glaucus (L.) LK. Common throughout island.—
Jelliffe.

Penicillium crustaceum Fr. Frequent throughout Long Isl-
and—Jelliffe.

CENANGIACEAE.

Bulgaria inquinans (Pers.) Fr. On logs west of lakes.—C.
S. H.—D. S. J.

CHAETOMIACEAE.

Eutypella glandulosa (CK.) Ell. Not infrequent on *Ailan-*
thus.—Jelliffe.

Diatrype stigma (Hoff.) Fr. Frequent throughout.—Jelliffe.

Nummularia Bulliardi Tul. Frequent throughout.—Jelliffe.

Ustilina vulgaris Tul. Frequent throughout.—Jelliffe.

DOTHIDIACEAE.

Plowrightia morbosa (Schw.) Sacc. Matheson Estate. Lloyd
Neck, L. I. On plum tree.—M. A. B.

ERYSIBACEAE.

Microsphaera alni (Wallr.) Salmon. On lilac bush back of De
Forest estate.—M. A. B.

Microsphaera grossulariae (Wallr.) Lev. On leaves of *Sam-*
bucus Canadensis.—Jelliffe.

Microsphaera quercina (Schw.) Burrill. On *Quercus alba*,
Jamaica.—Jelliffe.

Phyllactinia guttata Lev. On chestnut leaves. Jamaica, L. I.
—Jelliffe.

Sphaerotheca Castagni Lev. Frequent throughout.—Jelliffe.

EXOASCACEAE.

Taphrina alnitorqua (Tul.) Kuhn. Common on *Alnus incana*.
—A. F. B.

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GEOGLOSSACEAE.

- Geoglossum americanum* (Cooke) Sac. On moss, C. S. H.—
D. S. J.
Geoglossum glutinosum. Pers. On moss near 3rd lake, C.
S. H.—M. A. B.
Geoglossum ophioglossoides (L.) Sacc. Mossy Banks. C. S.
H.—D. S. J.
Leotia chlorocephala Schw. Marshy ground; C.S.H.—M.A.B.
Leotia lubrica (Scop.) Pers. Common on ground, C. S. H.—
N. M. G.
Leotia viscosa (Fr.) Schr. Occasional in woods, C. S. H.—
D. S. J.

HELOTIACEAE.

- Chlorosplenium aeruginosum* (Oed.) DeNot. Decayed wood,
C. S. H.—A. F. B.
Helotium citrinum (Hedw.) Fr. Frequent, L. I.—Jelliffe.
Helotium subsessile. Schum. Rotten twigs, C. S. H.—N.M.G.
Monilia cinerea Bon. (?) On plum trees, C. S. H.—A. F. B.
Sarcoscypha coccinea (Scop.) Sacc. C. S. H.—M. A. B.
Sclerotinia fructigena (Pers.) Schroet. On peach trees, C. S.
H.—A. F. B.

HELVELLACEAE.

- Helvella crispa* (Scop.) Fr. Marsh near 2nd lake, C. S. H.—
A. F. B.
Helvella lacunosa Fries. On ground in woods, C. S. H.—
D. S. J.
Morchella esculenta (L) Pers. Infrequent, L. I.—Jelliffe.

HYPOCREACEAE.

- Chromacreia gelatinosa* (Tode) Fr. On rotten logs near first
lake, C. S. H.—A. F. B.
Hypocrea rufa (Pers.) Fr. Frequent, L. I.—Jelliffe.
Hypomyces chrysospermum (Bull.) Tul. Common in woods,
C. S. H.
Hypomyces hyalinus. (Schw.) Tul. Common in woods, C. S.
H.—A. F. B.
Hypomyces Lactifluorum (Schw.) Tul. Glen Cove, L. I.—
Jelliffe.

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Nectria Peziza (Tode) Fr. West of lakes on dead limbs, C.
S. H.—A. F. B.

MELOGRAMMATACEAE.

Endothia parasitica (Murrill) Anderson. Chestnut trees, C.
S. H.—M. A. B.

PEZIZACEAE.

Lachnea scutellata (L.) Sacc. Common on logs, C. S. H.—
M. A. B.

Peziza pustullata. Pers. On ground near 1st lake, C. S. H.
—M. A. B.

PYRENONEMATACEAE.

Pyronema confluens Tul. 1st lake. C. S. H.—A. F. B.

RHIZINIACEAE.

Psilopeziza babingtonii Berk (?) Rotten logs near 1st lake, C.
S. H.—D. S. J.

SACCHAROMYCETACEAE.

Saccharomyces agglutinus Fr. Common L. I.—Jelliffe.

Saccharomyces cerevisiae Meyen. Frequent L. I.—Jelliffe.

Saccharomyces niger Marp. Frequent L. I.—Jelliffe.

SPHAERIACEAE.

Rosellinia subiculata (Schw.) Sacc. On rotten wood, C. S. H.
—M. A. B.

XYLARIACEAE.

Daldinia concentrica (Bolt.) Ces. and De Not. Frequent L. I.
—Jelliffe.

Daldinia constricta De Not. On birch log in region of lakes,
C. S. H.—M. A. B.

Hypoxylon coccineum Bull. On beech tree near lakes, C.S.H.
—D. S. J.

Hypoxylon fuscum (Pers.) Fr. Frequent throughout L. I.—
Jelliffe.

Hypoxylon multiforme Fr. C. S. H.—D. S. J.

Hypoxylon Sassafras (Schw.) Berk. Common throughout
L. I.—Jelliffe.

Xylaria polymorpha Grev. On decaying logs near lakes. On
sand, C. S. H.—M. A. B.

THE FLORA OF COLD SPRING HARBOR.

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BASIDIOMYCETES.

AGARICACEAE.

- Agaricus diminutivis* Pk. In woods near DeForest Estate, C. S. H.—M. A. B.
- Amanita Frostiana* Pk. On ground at Center Island, C. S. H.—M. A. B.
- Amanita muscaria* (L.) Meadows, C. S. H.—M. A. B.
- Amanita phalloides* (Fr.) Quel. Glen Cove, L. I.—Jelliffe.
- Amanita phalloides* var. *viridis* Pers. Huntington Road, C. S. H.—M. A. B.
- Amanita rubescens* Fr., C. S. H.—M. A. B.
- Amanita strobiliformis* Fr., C. S. H.—M. A. B.
- Amanitopsis vaginata* (Bull) Roz. Moist woods. 1st lake, C. S. H.—M. A. B. The three varieties listed as *alba*, *fulva*, and *livida* are also reported.
- Amanitopsis volvata* Pk. On ground between 1st and 2nd lakes, C. S. H.—G. C. F.
- Armillaria mellea* Vahl. Frequent throughout island.—Jelliffe.
- Boletinus cavipes* (Opat.) Kalckb. On ground near 2nd lake, C. S. H.—D. S. J.
- Boletinus porosus* var. *opacus* Pk. On ground west of lower lake, C. S. H.—D. S. J.
- Boletinus porosus* (Berk.) Pk. On moss, on ground old rail way survey west side of 2nd lake, C. S. H.—D. S. J.
- Cantherellus cibarius* Fr. On ground back of DeForest Estate, 1st and 2nd lakes, C. S. H.—D. S. J. and G. C. F.
- Cantharellus cinnabarinus*. Schw. On moss, C. S. H.—M. A. B.
- Clitocybe candida* Bres. On ground. C. S. H.—M. A. B.
- Clitocybe gigantea* (Quel.) Champ. Sandy soil., C. S. H.—M. A. B.
- Clitocybe infundibuliformis*. Bull. Ground in woods, C. S. H.—M. A. B.
- Clitocybe media*. Pk. Vicinity of lakes, C. S. H.—M. A. B.
- Collybia butyracea* (Bull.) Quel. On decayed leaves between 1st and 2nd lakes, C. S. H.—G. C. F.
- Coprinus atramentarius*. (Bull.) Fr. On barrens. Road to Hicksville, C. S. H.—M. A. B.
- Coprinus micaceus* (Bull) Fr. Glen Cove, L. I.—Jelliffe.

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- Cortinarius* (Fr.) sp. On dead and decaying leaves west of 1st and 2nd lakes, C. S. H.—G. C. F.
- Flammula carbonaria* Fr. Vicinity of lakes. On Moss, C. S. H.—M. A. B.
- Flammula flavida* (Pers.) Quel. Woods in vicinity of lakes on decayed logs, C. S. H.—M. A. B.
- Hygrophorus cantharellus* Schw. Fresh water marsh near fish hatchery, C. S. H.—M. A. B.
- Hygrophorus conicus* (Scop.) Fr. On ground in woods, C. S. H.—M. A. B.
- Hygrophorus fuliginus*. Frost., C. S. H.—M. A. B.
- Hyphaloma Sublateritium* (Schaeff.) Quel. Frequent throughout island.—Jelliffe.
- Hyponeuris alneus* (L.) Earl. On black Cherry bark, C. S. H.—M. A. B.
- Inocybe cincinnata*. (Fr.) Gillet. On ground beneath pine trees, C. S. H.—M. A. B.
- Lactaria lignyotus*. Fr. Near research laboratory in sandy soil, C. S. H.—M. A. B.
- Lactaria piperatus*. (L) Fr. Roads and woods, C. S. H.—M. A. B.
- Lactaria vellerea*. Fr. On ground in woods, C. S. H.—M. A. B.
- Lactaria volemus*. Fr. Sandy soil, C. S. H.—N. M. G.
- Lepiota naucina*. Fr. On ground between 1st and 2nd lakes, C. S. H.—G. C. F.
- Leptoglossum* sp. Swamp at 3rd lake, C. S. H.—N. M. G.
- Marasmius foetidus*. Sow. On twigs and old tree stumps near lakes, C. S. H.—M. A. B.
- Marasmius nigripes*. Schw. On oak leaves at DeForest Estate, C. S. H.—M. A. B.
- Marasmius oreades* (L) Fr. Frequent throughout island—Jelliffe.
- Marasmius sarmentosus* Berk. On fallen oak leaves and twigs. Huntington Rd., C. S. H.—A. F. B.
- Nyctalus lycoperdoides* (Bull) Schroet. On *Russula* sp. near Laurelton, C. S. H.—M. A. B.

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Omphalia caespitosa Bot. Old tree stumps near DeForest Estate, C. S. H.—M. A. B.

Omphalia campanella Batsch. Mosses, old stumps, woods at left of lakes, C. S. H.—M. A. B.

Panaeolus campanulatus Linn. On horse dung west of 2nd lake, C. S. H.—G. C. F.

Panaeolus retirugis Fr. On horse dung west of 2nd lake, C. S. H.—G. C. F.

Panus albido-tomentosus Cke. On twigs, C. S. H.—M. A. B.

Panus stypticus Fr. Old logs Jones' wood, C. S. H.—M. A. B.

Panus torulosus Fr. De Forest Estate, C. S. H.—M. A. B.

Pilosace exima Pk. Decayed logs. De Forest Estate, C. S. H.—M. A. B.

Psalliota campestris L. Frequent throughout island—Jelliffe.

Pleurotus ostreatus (Jacq.) Fr. Frequent throughout island.—Jelliffe.

Pleurotus sapidus Kalckb. Trees near Fish Hatchery, C. S. H.—A. F. B.

Pleurotus ulmarius (Bull) Quel. Glen Cove, L. I.—Jelliffe.

Russula alutacea Fr. Glen Cove, L. I.—Jelliffe.

Russula crustosa. Pk. Roadside De Forest Estate, C. S. H. M. A. B.

Russula cyanoxantha Schaeff. Ground, woods near lake, C. S. H.—M. A. B.

Russula emetica Vitt. C. S. H.—M. A. B.

Russula purpurina Q. & S. On ground on road to Eugenics Record Office, C. S. H.—M. A. B.

Russula roseipes (Secr.) Bres. Back of DeForest Estate, C. S. H.—M. A. B.

Russula virescens (Schaeff.) Fr., C. S. H.—M. A. B.

AURICULARIACEAE.

Calocera cornea (Batch) Fr., C. S. H.—A. F. B.

Dacrymyces chrysocomus. (Bull.) Tul. Rotten branches on ground, C. S. H.—G. C. F.

CALOSTOMATACEAE.

Calostoma cinnabarium Corda. Woods west of lakes, C. S. H.—A. F. B.

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CLAVARIACEAE.

- Clavaria amethystina*, Bull. C. S. H.—M. A. B.
Clavaria circinans Pk. Woods near lakes. C. S. H.—M. A. B.
Clavaria coronata Schw. On birch, woods near 2nd lake, C. S. H.
Clavaria fusiformis Sow. Between 2nd and 3d lakes, C. S. H.—G. C. F.
Clavaria pistillaris. L. Ground, between 1st and 2nd lakes. C. S. H.—G. C. F.
Clavaria stricta Pers. On ground, C. S. H.—M. A. B.
Lachnocladium Michinecri. B. and C. On wet ground. Center Island, C. S. H.—M. A. B.
Sparassis tremelloides Berk. Oak Stump on hill near laboratory, C. S. H.—G. C. F.

COLEOSPORIACEAE.

- Coleosporium solidaginis* (Schw.) Thuem. On *Solidago sempervirens*, C. S. H.—M. A. B.

CORTICIACEAE.

- Stereum compactum* Pers. Road to Huntington, C. S. H.—M. A. B.
Stereum complicatum Fr. Frequent throughout island. — Jelliffe.
Stereum frustulosum Pers. Frequent throughout island. — Jelliffe.
Stereum hirsutum (Willd.) Pers. Lake region and DeForest Estate, C. S. H.—M. A. B.
Stereum striatum Fr. On chestnut Bark. Road to Huntington, C. S. H.—M. A. B.
Stereum versicolor Fr. Frequent throughout Island—Jelliffe.
Sterigmatocystis sp. On horse chestnut bur. C. S. H.—M. A. B.

EXOBASIDIACEAE.

- Corticium comedans* (Nees) Fr. On cherry birch. C. S. H.—M. A. B.
Hirneola auricula—Judae. (L) Berk. C. S. H.—M. A. B.

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HYDNACEAE.

- Hydnum adustum*. Schw. Rotten wood. West of first lake.
C. S. H.—N. M. G.
Hydnum Caput-Ursi Fr. C. S. H. vicinity—N. M. G.
Hydnum repandum L. C. S. H.—A. F. B.
Hydnum zonatum. Batsch. Ground vicinity first lake.
Irpex cinnamomeus Fr. Woods near school house on dead
branches. C. S. H.—G. C. F.
Irpex deformis Fr. Woods near lakes, C. S. H.—M. A. B.
Irpex fusco-violaceus (Schr.) Fr. Near Lakes, on birch bark.
C. S. H.—M. A. B.
Irpex tulipiferae. Schw. Woods back of DeForest Estate on
old twigs. C. S. H.—M. A. B.
Phaeodon imbricatus (L.) Schrot. On ground west of 2nd
lake, C. S. H.—G. C. F.

LYCOPERDACEAE.

- Bovistella ohiensis* E. and M. Goat Pasture, C. S. H.—G.C.F.
Geaster hygrometricus Pers. Sand beach near Bayville, C.
S. H.—M. A. B.
Lycoperdon cyathiforme Bosc. C. S. H.—M. A. B.
Lycoperdon gemmatum Batsch. Soil in woods, C. S. H.—
M. A. B.
Lycoperdon piriforme Schaeff. Common.—Jelliffe.

MELAMPSORACEAE.

- Caeoma erigonatum* S. On *Erigeron* sp., C. S. H.—A. F. B.
Caeoma nitens (Schw.) New. C. S. H.—A. F. B.
Calyptospora goeppertiana Kuhn. On *Vaccinium corymbo-*
som, forming witches brooms. C. S. H.—A. F. B.

NIDULARIACEAE.

- Crucibulum vulgare* Tul. Common on twigs and earth near
lakes, C. S. H.—A. F. B.
Cyathus hirsutus (Schaeff) Duf. Hoffman. On logs, C. S.
H.—A. F. B.
Cyathus sp. (Hall) Roadside, on earth and old horse dung.
C. S. H.—A. F. B.

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PHALLACEAE.

- Dictyophora duplicata* (Bosc) Ed. Fisch. C. S. H.—A. F. B.
Dictyophora phalloidea Desv. Frequent, L. I.—Jelliffe.
Mutinus bovinus Morg. Glen Cove, L. I.—Jelliffe.
Mutinus caninus (Huds.) Fr. Frequent on soil near laboratory.
Mutinus elegans Mont. Under old leaves chestnut woods, Huntington road. C. S. H.—D. S. J.
Phallus impudicus L. Infrequent throughout the island. —Jelliffe.
Rhytisma acerinum (Pers.) Fr. Frequent throughout L. I.—Jelliffe.
Rhytisma Solidaginis (Schw.) Fr. Frequent throughout L. I.—Jelliffe.

POLYPORACEAE.

- Boletus alveolatus* B. and C. Frequent rich woods. C. S. H.—M. A. B.
Boletus americanus Pk. Woods south of Syosset Rd. C. S. H.—M. A. B.
Boletus auripes Pk. Huntington Road. C. S. H.—M. A. B.
Boletus auriporus Pk. C. S. H.—M. A. B.
Boletus bicolor (Pk.) Ground C. S. H.—M. A. B.
Boletus castaneus (Bull.) Woods. Road to Huntington, C. S. H.—M. A. B.
Boletus felleus (Bull.) Woods, near lakes. C. S. H.—D. S. J.
Boletus Frostii. (Russell.) Common in woods, south side Syosset Rd., C. S. H.—N. M. G.
Boletus gracilis (Beck) P. Henn. Woods, south side Syosset Road. C. S. H.—N. M. G.
Boletus griseus Frost. Ground. West side second lake, C. S. H.—M. A. B.
Boletus indecisus. (Pk.) Woods west of 2nd lake. C. S. H.—M. A. B.
Boletus ornatipes Pk. Open woods. Hill to Huntington, 2nd lake, C. S. H.—D. S. J.
Boletus russelli Frost. Open woods. Huntington Rd. C. S. H.—D. S. J.
Cyclomyces greenii Berk. Soil in woods near lake. C. S. H.—D. S. J.

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- Daedalea confragosa*. (Bolt) Pers. Old stump. Sagamore Hill. C. S. H.—M. A. B.
- Daedalea quercina*. (L) Pers. Oak and chestnut stumps. Lakes. Huntington Road, C. S. H.—M. A. B.
- Daedalea unicolor* (Bull.) Fr. Frequent throughout the island.—Jelliffe.
- Favolus europaeus* Fr. Not infrequent. L. I.—Jelliffe.
- Fistulina hepatica* Fr. Frequent on chestnut, C. S. H.—M. A. B.
- Fistulina pallida*. B. and R. DeForest Estate. White oak stump, C. S. H.—M. A. B.
- Fomes applanatus* (Pers.) Wallr. Common on fallen logs. C. S. H.—M. A. B.
- Lenzites Betulina* (L.) Fr. Frequent throughout island. — Jelliffe.
- Lenzites bicolor* Fr. Glen Cove.—Jelliffe.
- Lenzites sepiaria* Fr. On telegraph pole near village, C. S. H.—M. A. B.
- Polyporus betulinus* (Bull.) Fr. On *Betula populifolia* near Huntington Road. C. S. H.—A. F. B.
- Polyporus cinnabarinus*. (Jacq.) Fr. Covering a fallen log near sandpit. C. S. H.—M. A. B.
- Polyporus dryophilus* (Berk.) (*C and de Not.*) On rotten wood. C. S. H.—N. M. G.
- Polyporus flavo-virens*. B. and Rav. Ground near Oyster Bay, C. S. H.—N. M. G.
- Polyporus lucidus*. Fr. On Hempstead plain; Hicksville. Stumps. C. S. H.—M. A. B.
- Polyporus obliquus*. Pers. Old log to left of sandspit. C. S. H.—M. A. B.
- Polyporus pubescens* (Sch.) Fr. Beech log, C. S. H.—M. A. B.
- Polyporus robiniophilus* Fr. Old locust tree near village. C. S. H.—M. A. B.
- Polyporus sulphureus* (Bull.) Fr. Old logs. Stumps, C. S. H.—D. S. J.
- Polystictus abietinus* (Dick) Fr. Old limb. C. S. H.—M. A. B.
- Polystictus cinnabarinus* (Klotz) Fries. On chestnut posts near rectory, C. S. H.—D. S. J.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

THE AMERICAN MIDLAND NATURALIST.

- Polystictus cinnamoneus* Jacq. Mossy ground near Tiffanys.
C. S. H.—M. A. B.
- Polystictus connatus* Schw. Woods west of lakes. C. S. H.
—A. F. B.
- Polystictus hirsutus* (Wulf.) Fr. Stumps, C. S. H.—M. A. B.
- Polystictus pargamenus* Fr. Old stumps. C. S. H.—M. A. B.
- Polystictus perennis* (L.) Fr. West of lakes in the woods, C.
S. H.—A. F. B.
- Polystictus versicolor*, (L.) Fr. Old logs. Road to Eugenics
Record Office. C. S. H.—M. A. B.
- Poria* sp. Old twigs. C. S. H.—M. A. B.
- Simblum rubescens* Gerard.—Jelliffe.
- Simblum sphaerocephalum* Schlecht. Near Jones residence.
C. S. H.—N. M. G.
- Strobilomyces strobilaceus*. Scop ex. Berk. Frequent in
woods, C. S. H.—G. C. F. and A. F. B.
- Trametes cinnabaria* Fr. C. S. H.—D. S. J.
- Trametes sepium* B and C. Not uncommon through Island.
—Jelliffe.

PUCCINIACEAE.

- Aecidium Caladii*. Frequent throughout island.—Jelliffe.
- Aecidium fraxini*. Schw. On ash trees.
- Gymnosporangium globosum* Farl. Aecidial stage on *Crataegus* sp. Mathesons Estate. C. S. H.—M. A. B.
- Gymnosporangium juniperi-virginiae* Schw. On juniper and
apple trees. C. S. H.—M. A. B.
- Gymnosporangium macropus* Lk. Common on Juniper, C. S.
H.—D. S. J.
- Gymnosporangium Sabinae* (Dicks) Winter. Frequent
throughout island.—Jelliffe.
- Puccinia Compositorum* Schw. Glen Cove. L. I.—Jelliffe.
- Puccinia graminis* P. Abundant on grass. C. S. H.—A. F. B.
- Puccinia Hieracii* (Schw.) Mart. Glen Cove, L. I.—Jelliffe.
- Puccinia Xanthii* Schw. Frequent throughout island.—Jelliffe.
- Uredo Potentillorum* Oc. Common throughout island.—Jelliffe.
- Uromyces fragarioides* (?) On *Duchesnia* near Laboratory, C.
S. H.—M. A. B.
- Uromyces Lespedezae*. Schw. Frequent throughout island.—
Jelliffe.

THE FLORA OF COLD SPRING HARBOR.

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THE AMERICAN MIDLAND NATURALIST.

Uromyces polygoni (Pers.) Fckl. On *Polygonum aviculare*,
C. S. H.—A. F. B.

Uromyces statice B. & C. on *Statice limonium* at Lloyds
Neck. C. S. H.—A. F. B.

SCLERODERMATACEAE.

Scleroderma vulgare Horn. C. S. H.—M. A. B.

SPHAEROBALACEAE.

Sphaerobolus carpololus L. (?) Rotten logs near 1st lake.
C. S. H.—D. S. J.

THELEPHORACEAE.

Craterellus cornucopoides L. ex. Pers. Gregarious on ground.
C. S. H.—M. A. B.

Craterellus sinuosus Fr. var. *crispus*. On ground in woods
at Tiffany's. C. S. H.—M. A. B.

Hymenochaete rubiginosum (Dicks.) Lev. C. S. H.—D. S. J.

Michenera Artocreas B. & C. C. S. H.—N. M. G.

Solenia villosa Hoffm. On decaying branches of *Rubus* near
school house. C. S. H.—M. A. B.

TILLETIACEAE.

Entyloma rhodopolium (Fr.) Quel. DeForest Estate. C.S.H.
—M. A. B.

TREMELLACEAE.

Exidia glandulosa (Bull.) Fr. Common on dead twigs. C.
S. H.—M. A. B.

Tremella vesicaria. Eng. Bot. On rotten branches on
ground near school house.—G. C. F.

Ulocalla foliacea (Pers.) Bref. Dead branches. West of
2nd Lake. C. S. H.—G. C. F.

USTILAGINACEAE.

Graphiola Phoenicis (Moug.) Post. On cultivated palms. C.
S. H.—M. A. B.

Ustilago zae (Backm.) Ung. On corn in Matheson's Garden.
Lloyd Neck, L. I.—M. A. B.

FUNGI IMPERFECTI

DEMATIACEAE.

Alternaria tenuis. Nees. On dung culture. C. S. H.—A. F. B.

Sporodesmium sp. Rotten log 1st lake. C. S. H.—N. M. G.

THE FLORA OF COLD SPRING HARBOR.

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THE AMERICAN MIDLAND NATURALIST.

MUCEDINACEAE.

- Amblyosporium alboluteum* Cost. Woods near school house.
C. S. H.—A. F. B.
Botrytis cinerea Pers. On leaves of *Symplocarpus foetidus*.
C. S. H.—A. F. B.
Cephalothecium roseum Corda. On decaying wood. C. S. H.
—A. F. B.
Cercospora symplocarpi Peck. On *Symplocarpus foetida*. C.
S. H.—A. F. B.
Mycogone incarnata. Pers. On decaying *Agaricus*. C. S. H.
A. F. B.
Rhinotrichum (Corda) sp. On cherry bark. C. S. H.—A. F. B.
Sepedonium chrysospermum (Bull) Fries. Parasitic on *Bol-
letus* sp. near fish hatchery. C. S. H.—A. F. B.
Stachybotrys lobulata Corda. On goat dung. Lloyd's Neck.
C. S. H.—A. F. B.

SPHAERIOIDACEAE.

- Darlucella Filum* (Biv.) Cast. Not infrequent.—Jelliffe.
Phyllosticta acericola C. and B. On *Acer rubrum*. DeForest
Estate. C. S. H.—M. A. B.
Phyllosticta catalpae E. and M. Havemeyer's Estate on
Catalpa sp. C. S. H.—M. A. B.
Phyllosticta smilacis. E. and E. On *Smilax glauca*. C. S. H.
—M. A. B.
Phyllosticta syringae Westend. On *Syringa vulgaris*, C. S.
H.—M. A. B.
Phyllosticta terminalis. E. and M. On *Leucothoe* sp. C. S. H.
—M. A. B.
Septoria Kalmicola Fries. Common on *Kalmia*. C. S. H. —
D. S. J.

STILBACEAE.

- Isaria* sp. On Cocoon. C. S. H.—A. F. B.

TUBERCULARIACEAE.

- Fusarium roseum* Lk. Not infrequent on L. I.—Jelliffe.
Tubercularia vulgaris Tode. Common throughout.—Jelliffe.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

LICHENES.*

CLADONIACEAE.

- Baeomyces roseus* Pers. 3d lake, C. S. H.—N. M. G.
Cladonia coccifera Willd. Fl. Berol. On ground west of 3rd lake. C. S. H.—S. A. G.
Cladonia cristatella Tuck. On ground west of 3rd lake, C. S. H.—S. A. G.
Cladonia fimbriata (L.) Fr. Frequent on Long Island. — Jelliffe.
Cladonia furcata (Huds.) Fr. Frequent on Long Island. — Jelliffe.
Cladonia gracilis verticillata Fr. West of 3rd lake, C.S.H.—S. A. G.
Cladonia papillaria (Ehrb.) Hoffmann. Port Jefferson, L. I. —Wood ('14).
Cladonia rangiferina Web. On ground west of 3rd lake. C. S. H.—S. A. G.
Cladonia pyxidata (L.) Fr. West of 3rd lake. C.S.H.—S.A.G.
Cladonia pyxidata epiphylla Hoffm. Hempstead Plain, Hicksville, L. I.—Harper, '12.
Cladonia squamosa Hoffm. On ground west of 3rd lake.—S. A. G.
Stereocaulon condensatum Hoffm. On ground. C. S. H. —S. A. G.

LECIDEACEAE.

- Buellia pullata* Tuck. Port Jefferson, L. I.—Wood.
Lecidea parasema (Ach.) Th. Fr. Frequent on Long Island. —Jelliffe.

GRAPHIDACEAE.

- Graphina anguina* Muell.-Arg. Frequent on Long Island. —Jelliffe.
Graphina anguina var. *graciliens*. Nyl. C.S.H.—Wood ('14)

* Revised according to nomenclature given in "British Lichens," A. L. Smith, British Museum of Natural History, 1911.

For other lichens which may eventually be collected at Cold Spring Harbor see Burnham and Lathan, *loc cit.*, "Additions to the Lichen Flora of Long Island" Wood G. C. *Bryologist* 8. "A Preliminary List of the Lichens found within a radius of 100 miles of N. Y. City," Wood. G. C. *Torreya* 14.

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PARMELIACEAE.

- Cetraria aurascens* Tuckm. On Trees. C.S.H.—Wood ('14)
Cetraria lacunosa Ach. On Trees. C.S.H.—Wood ('14)
Evernia furfuracea Mann. Lich. Bohem. C.S.H.—Wood ('14)
Leconora subfusca (L.) Ach. Research wharf, C. S. H.— D.
 S. J. and H. H. Y.
Lobaria pulmonaria (L) Ach. Common throughout island.
 —Jelliffe.
Parmelia caperata (L) Ach. Common throughout island.—
 Jelliffe.
Parmelia perforata (Jaeg.) Ach. C. S. H., on trees.—Wood.
 —('14)
Parmelia saxatilis Ach. Meth. Lich. 3d lake, C. S. H.—S.A.G.
Parmelia saxatilis var. *sulcata* Ngl. C. S. H. on trees. —
 Wood, ('14)
Ramalina calicaris (L.) Fr. Common throughout island.—
 Jelliffe.
Usnea barbata Web. Common throughout island—Jelliffe.
Usnea barbata var. *florida* (Fr.) C.S.H. On trees—Wood, ('14)

PHYSICIACEAE.

- Physcia orbicularis*. Dalla Torre and Smith. On rocks, C.
 S. H.—Wood.
Physcia stellaris. Nyl. Frequent throughout island.—Jelliffe.
Pyxine sorediata Fr. On Trees. C. S. H.—N. M. G.
Theloschistes chrysophthalmus. Th. Fr. Gen. Het. Frequent.
 on L. I.—Jelliffe.

XII.—EMBRYOPHYTA ASIPHONOGAMA

I.—BRYOPHYTA.

HEPATICAE.†

ANTHOCEROTACEAE.

**Anthoceros Laevis* L.

**Nothothylas orbicularis* (Schwein) Sulliv.

† Nomenclature that of the "Second Revised List of New England Hepatica;" A. W. Evans, (Rhodora 25). I am indebted to Professor Evans of Yale University for aid in revising this portion of the manuscript.

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THE AMERICAN MIDLAND NATURALIST.

CEPHALOZIACEAE.

- Bazzania trilobata* (L) S. F. Gray. Foot of tree, vicinity of 1st lake. C. S. H.—D. S. J.
**Calypogeia sphagnicola* (Arn and Perss.) Wernst & Loeske.
**Calypogeia Sullivantii* Aust.
Calypogeia Trichomanis (L) Corda. On ground at head 1st lake. C. S. H.—D. S. J.
Cephalozia curvifolia (Dicks) Lindb. On rotten wood near 1st lake. C. S. H.—D. S. J.
**Cephalozia fluitans* (Nees) Spruce.
**Cephalozia Francisci* (Hook) Dumort.
**Cephalozia macrostachya* Kaal.
**Cephalozia media* Lindb.
**Lepidozia setacea* (Web.) Mitt.
**Odontoschisma prostratum* (Sw.) Trevis.
**Odontoschisma Sphagni* (Dicks) Dumort.

LEJEUNACEAE.

- **Frullania Asagrayana* Mont.
Frullania eboracensis Gottsche. Not infrequent on trees, Long Island.—Jelliffe.

LOPHOZIACEAE.

- Chiloscyphus polyanthos* (L) Corda. Near 1st and 2nd lakes. C. S. H.—D. S. J.
Chiloscyphus rivularis (Schrad.) Loeske. Near 1st and 2nd lakes. C. S. H.—D. S. J.
**Lophocolea heterophylla* (Schrad.) Dumort.
**Lophocolea minor* Nees.

MARCHANTIACEAE.

- Conocephalum conicum* (L) Du Mort. Common throughout the island.—Jelliffe.
Marchantia polymorpha L. Fish Hatchery Ponds. C. S. H.—N. M. G.

* Indicates species listed by Burnham and Latham from the vicinity of Southold and Gardiners Island (Torreya 14). These species may be expected to occur further along the north coast in the vicinity of Cold Spring Harbor.

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THE AMERICAN MIDLAND NATURALIST.

PELLIACEAE.

**Fossombronia foveolata* Lindb.

**Pellia epiphylla* (L.) Corda.

**Pellia Fabroniana* Raddi.

PORELLACEAE.

**Porella pinnata* L.

**Porella platyphylla* (L.) Lindb.

Porella platyphylloidea (Schwein) Lindb. Frequent throughout island.—Jelliffe.

PTILIDACEAE.

**Ptilidium pulcherrimum* (Web.) Hampe.

RADULACEAE.

**Radula complanata* (L.) Dumort.

REBOULIACEAE.

**Asterella tenella* (L.) Beauv.

RICCARDIACEAE.

Pallavicinia Lyelli (Hook) S. F. Gray. Fern Belt, Salt Marsh vicinity; 1st lake. C. S. H.—D. S. J.

Riccardia multifida (L) S. F. Gray. C. S. H.—D. S. J.

**Riccardia pinguis* (L) S. F. Gray. C. S. H.—D. S. J.

Riccardia sinuata (Dicks) Lindb. C. S. H.—D. S. J.

RICCIACEAE.

**Riccia fluitans* L.

**Riccia Sullivantii* Aust.

Ricciocarpus natans (L) Corda. Between 1st and 3d lakes. C. S. H.—D. S. J.

MUSCI.*†

BARTRAMIACEAE.

Bartramia pomiformis (L) Hedw. C. S. H.—Grout, ('02,'16)

Philonotis fontana (L.) Brid. Huntington, L. I.—Jelliffe.

* Nomenclature that of the "Mosses of Western Pennsylvania, O. E. Jennings. Published by the author, Pittsburgh, Pa. Dr. Jennings has kindly checked this list with records of his own from Cold Spring Harbor vicinity.

† Grout ('16) lists 380 species and varieties of Mosses found in New York City and Vicinity.

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THE AMERICAN MIDLAND NATURALIST.

BRACHYTHECIACEAE.

- Brachythecium acuminatum* (Hedw.) Kindb. C. S. H. vicinity.—N. M. G.
Brachythecium flagellare (Edw.) Jennings. Bryol. Europ. Frequent. C. S. H.—O. E. J.
Brachythecium rivulare (Bruch) Centreport, L. I.—Jelliffe.
Cirriphyllum Boscii (Schw.) Grout. Frequent L. I.—O. E. J.
Eurynchium pulchellum (Hedw.) Jennings. Northport. L. I.—Jelliffe.
Oxrhynchium hians (Hedw.) Jennings. Northport. L. I. —Jelliffe.
Rhynchostegium serrulatum (Hedw.) Jaeger. Frequent, L. I.—Jelliffe.

BRYACEAE.

- Bryum argenteum* (L) Hedw. Common throughout L. I.—O. E. J.
Bryum caespiticium (L) Hedw. Northport, L. I.—Jelliffe.
Leptobryum pyriforme (L) Schimp. Lloyds Neck, L. I.—Jelliffe.

BUXBAUMIACEAE.

- Diphyscium foliosum* (Web.) Mohr. Centreport, L.I.—Jelliffe.

CLIMACEAE.

- Climacium americanum* Brid. Not infrequent, L. I.—Jelliffe.

DICRANACEAE.

- Ceratodon purpurascens* (Hedw.) Brid. Not infrequent, L. I.—Jelliffe.
Dicranella heteromalla (L) Schimp. Common throughout.—O. E. J.
Dicranella varia (Hedw.) Schimp. Northport.—Jelliffe.
Dicranum flagellare Hedw. Not infrequent throughout. —Jelliffe.
Dicranum longifolium (Ehr.) Hedw. C. S. H.—N. M. G.
Dicranum montanum Hedw. Northport, L. I.—Jelliffe.
Dicranum scoparium (L) Hedw. Frequent on L. I.—Jelliffe.
Dicranum spurium, Hdw. Huntington, L. I.—Jelliffe.
Ditrichum pallidum (Schreb.) Hamp. Not infrequent, L. I.—Jelliffe.
Ditrichum tortile (Schrad.) Linds. Huntington, L. I. Jelliffe.

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THE AMERICAN MIDLAND NATURALIST.

Pleuridium alternifolium (Dicks) Rab. Glen Cove, L. I.—Jelliffe.

ENTODONTACEAE.

Entodon cladorrhizans (Hedw.) G. Mueller. C. S. H.—N.M.G.

Platygerium repens (Brid.) Bryol Europ. Northport, Jelliffe.

Pylaisia schimperi R. and C. On apple trees, C. S. H. — Grout, ('02, '16)

FONTINALACEAE.

Dichelyma capillaceum (Dill.) Bryol. Europ. Northport, L. I.—Jelliffe.

Fontinalis antipyretica L. 1st and 2nd lakes. C. S. H.—O.E.J.

Fontinalis antipyretica var. *gigantea* Sull. 1st and 2nd lakes. C. S. H.—J. A. H.

FUNARIACEAE.

Funaria hygrometrica (L.) Sibth. Not infrequent L. I.—Jelliffe.

Physcometrium Pyriforme L. Glen Cove, L. I.—Jelliffe.

ORTHOTRICHACEAE.

Drummondia clavellata Hook. Lloyd's Neck, L. I.—Jelliffe.

Orthotrichum Braunii Bry. Eur. Centreport, L. I.—Jelliffe.

POLYTRICHACEAE.

Catharinea angustata Brid. Frequent, L. I.—Jelliffe.

Catharinea undulata (L.) Web. and Mohr. Frequent L. I.—Jelliffe.

Pogonatum pennsylvanicum (Hedw.) Paris. Frequent L. I.—O. E. J.

Polytrichum commune L. C. S. H. vicinity.—N. M. G.

Polytrichum Juniperinum Willd. C. S. H. vicinity.—O. E. J.

Polytrichum Ohioense R. and C. C. S. H. vicinity.—G. H. H.

SPHAGNACEAE.

Sphagnum capillifolium (Ehr.) Russ. and Warn. Not infrequent, L. I.—Jelliffe.

Sphagnum latifolium Hedw. Not infrequent, L. I.—Jelliffe.

Sphagnum molle Sull. Northport, L. I.—Jelliffe.

TORTULACEAE.

Weisia viridula (L.) Hedw. Common throughout.—O. E. J.

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HEDWIGIACEAE.

Hedwigia ciliata Ehrb. Bryol. Europ. Northport.—Jelliffe.

HYPNACEAE.

Amblystegium adnatum (Hedw.) Br. and Sch. Northport.—Jelliffe.

Amblystegium riparium (L.) Br. and Sch. Frequent, L. I.—Jelliffe.

Campylium hispidulum (Brid) Martin. Centreport, L. I.—Jelliffe.

Hylocomium splendens (Hedw.) Bryol. Europ. Northport.—Jelliffe.

Isopterygium turfaceum (Lind.) Northport. L. I.—Jelliffe.

Plagiothecium sylvaticum (Huds.) Bryol. Eur. Centreport, L. I.—Jelliffe.

Stereodon cupressiforme (L.) Brid. Not infrequent, L. I.—Jelliffe.

Stereodon haldanianus (Grev.) Lindb. Frequent, L. I.—Jelliffe.

Stereodon imponens (Hedw.) Brid. Frequent, L. I.—Jelliffe.

LESKEACEAE.

Elodium Paludosum (Sull.) Loeske. Centreport, L. I.—Jelliffe

Haplocladium virginianum (Bridel.) Brotherus. Lloyds Neck, L. I.—Jelliffe.

Thelia asprella (Schimp) Sull. On tree, C. S. H.—D. S. J.

Thelia hirtella (Hedw.) Sull. Frequent throughout, L. I. —Jelliffe.

Thuidium delicatulum (L.) Mitt. Frequent on L. I.—O. E. J.

LEUCOBRYACEAE.

Leucobryum glaucum (L.) Schimp. Not infrequent Long Island.—Jelliffe.

MNIACEAE.

Mnium affine Bland. Common throughout L. I.—O. E. J.

Mnium cuspidatum (L.) Leys. 1st and 2nd lake regions. C. S. H.—N. M. G.

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XII.—EMBRYOPHYTA ASIPHONOGANA

II.—PTERIDOPHYTA.

OPHIOGLOSSACEAE.

Botrychium dissectum Spreng. Cut-leaved Grape-Fern or Moon Wort. Coppice, Jones Marsh, 1st, 2nd lakes. C.S.H.—G.H.H.

Botrychium obliquum Muhl. Ternate Grape-fern. Coppice. Jones Marsh. C.S.H.—N.M.G.

Botrychium virginianum L. Virginia Grape-fern. Jones' Woods, High Hill. C.S.H.—N.M.G.

OSMUNDACEAE.

Osmunda cinnamomea L. Cinnamon Fern. Moist woods, gardens, C.S.H.—N.M.G.

Osmunda claytoniana L. Clayton's Fern. Moist woods, C. S.H.—N.M.G.

Osmunda regalis L. Royal Fern. Coppice of Jones Marsh. C.S.H.—C.E.

POLYPODIACEAE.

Adiantum pedatum L. Maiden-hair or Lock-hair Fern. Moist, rich woods. C.S.H.—N.M.G.

Anchistea virginica (L) Presl. Virginia Chain Fern. C.S.H.—J.A.H.

Asplenium platyneuron Oakes. Ebony Spleenwort. De Forest Estate, C.S.H.—G.H.H.

Athyrium Filix-femina (L.) Roth. Lady Fern. Woods near 1st lake—N.M.G.

Dennstaedtia punctiloba (Mich.) Moore. Hay Scented Fern. Moist woods, C.S.H.—N.M.G.

Dryopteris Clintoniana. (D. C. Eaton) Clinton's Fern. C. S.H.—N.M.G.

Dryopteris boottii (Tuckerm.) Underw. Boott's Shield Fern. Vicinity C. S. H.—J.A.H.

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THE AMERICAN MIDLAND NATURALIST.

- Dryopteris marginalis* L. Evergreen Wood Fern. Moist rich woods. C.S.H.—G.H.H.
- Dryopteris noveboracensis*. Sw. New York Fern. Woods near 1st lake.—N.M.G.
- Dryopteris Phegopteris* (L.) C. Chr. Long Beach Fern. C. S.H.—N.M.G.
- Dryopteris simulata*. Davenp. Dodge's Shield Fern. Vicinity C.S.H.—C.E.
- Dryopteris spinulosa*. (Muell.) Kuntze. Spinulose Shield Fern. C.S.H.—N.M.G.
- Dryopteris Thelypteris* L. W. Marsh Shield Fern. Near salt marsh, C.S.H.—N.M.G.
- Filix Fragilis* (L.) Underwood. Brittle Fern. C.S.H.—N.M.G.
- Lorinseria areolata* (L.) Prest. Net-veined Chain Fern. Between 1st and 2nd lakes, C.S.H.—G.H.H.
- Matteucia Struthiopteris* (L.) Todaro. Ostrich Fern. De Forest Estate, C.S.H.—N.M.G.
- Onoclea sensibilis* L. Sensitive Fern. Moist Localities. C. S.H.—N.M.G.
- Phyllites scolopendrium* (L.) Newm. Hart's Tongue. De Forest Estate, C.S.H.—N.M.G.
- Polystichum acrostichoides* (Mch.) Schott. Christmas Fern. Rocky woods, C.S.H.—N.M.G.
- Polystichum lonchitis* L. Holly Fern. C.S.H.—N.M.G.
- Polypodium vulgare* L. Common or Golden Polypody. Rocky banks, C.S.H.—N.M.G.
- Pteridium aquilinum* (L.) Kuhn. Brake. Bracken. Pine barrens, St. James, L. I.; C.S.H.—N.M.G.

MARSILEACEAE.

- Marsilea quadrifolia* L. European Marsilea or Pepper wort. Established at Fourth lake, and estates, C.S.H.—N.M.G.

SALVINIACEAE.

- Azolla caroliniana* Willd. Carolina Azolla. Estates vicinity, C.S.H.—N.M.G.

* In preparing this and following sections of the manuscript I am indebted for the aid of former students, Mrs. Christine Ruth Grier, Miss Gail Holliday, Miss Susan Green, Miss Emma Kemp, Miss Myrtle Waterfall.

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THE AMERICAN MIDLAND NATURALIST.

Salvinia natans (L.) All. Salvinia. Floating Moss. Estates. vicinity C.S.H.—N.M.G.

EQUISETACEAE.

Equisetum arvense L. Field Horsetail. Marsh, C.S.H.—N.M.G.

LYCOPODIACEAE.

Lycopodium carolinianum L. Carolina Club-moss. L. Ronkonkema region, L. I. Ferguson (2).

Lycopodium complanatum L. Trailing Christmas-green. Ground-pine. Moist woods, C.S.H.—N.M.G.

Lycopodium inundatum L. Bog or Marsh Club-moss. C.S.H.—N.M.G.

Lycopodium lucidulum. Michx. Shining Club-moss. Havemeyer Estate, near Oyster Bay—N.M.G.

Lycopodium obscurum L. Ground-pine. Havemeyer Estate, near Oyster Bay.—N.M.G.

SELAGINELLACEAE.

Selaginella apus (L.) Creeping Selaginella. Fern Belt in Salt Marsh. C.S.H.—H.S.C.

ISOETACEAE.

Isoetes Tuckermanni A. Br. Tuckerman's Quillwort. Lake Ronkonkema, L. I.—N.M.G.

XIII.—EMBRYOPHYTA SIPHONOGAMA. (SPERMATOPHYTA)

I. GYMNOSPERMAE.

PINACEAE.

—*Abies balsamea* (L.) Mill. Balsam Fir. Tiffany Estate, C.S.H.—G.H.H.

—*Abies Picea* (L.) Lindley. Norway Spruce. De Forest Estate, C.S.H.—N.M.G.

Chamaecyparis thyoides L. Southern White Cedar. Tiffany Estate, C.S.H.—N.M.G.

Juniperus communis L. Juniper. Eugenics Record office, C.S.H.—N.M.G.

Juniperus communis (L.) var *depressa* Pursh. Eugenics Record office grounds, C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

THE AMERICAN MIDLAND NATURALIST.

Juniperus virginiana L. Red Cedar. Near Eugenics Record office, C.S.H.—N.M.G.

—*Larix laricina* Koch. American Larch. Near Cold Spring Harbor Village.—G.H.H.

Pinus rigida Mill. Pitch Pine. Woods near C.S.H.—N.M.G.

Pinus Strobus L. White Pine. Weymouth Pine. Moist woods, C.S.H.—N.M.G.

—*Taxodium distichum* L. Bald Cypress. Matheson Estate, Lloyds Point, L. I.—N.M.G.

Thuja occidentalis L. Arbor Vitae. Tiffany Estate, C.S.H.—N.M.G. White Cedar Swamp, Merrick, L. I.

—*Tsuga canadensis* (L) Carr. Hemlock. Tiffany Estate, C.S.H.—N.M.G.

TAXACEAE.

—*Taxus canadensis*. Marsh. American Yew. De Forest Cemetery. C.S.H.—N.M.G.

II. ANGIOSPERMAE.

MONOCOTYLEDONES.

TYPHACEAE.

Typha angustifolia L. Narrow-Leaved Cat-tail. Brackish marsh, C.S.H.—N.M.G.

Typha latifolia L. Broad-leaved Cat-tail. Fresh water marsh, C.S.H.—N.M.G.

SPARGANIACEAE.

Sparganium androcladum (Eng.) Morong. Branching Bur-Reed. C.S.H.—N.M.G.

Sparganium lucidum Fernald. Shining-fruited Bur-reed. Muddy shore 1st lake, C.S.H.—N.M.G.

Sparganium simplex. Huds. Simple-stemmed Bur-reed. Black-weed. Mud flats, 2nd lake, C.S.C.—N.M.G.

ZANICHELLIACEAE.

—*Potamogeton alpinus*. Bubs. Northern Pondweed. C.S.H.—N.M.G.

Potamogeton crispus L. Pondweed. C.S.H.—N.M.G., Grout.

Potamogeton oakesianus Robbins Oakes' Pondweed. C. S. H.—Jelliffe.

Potamogeton pusillus L. Small Pondweed. 2nd lake, C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

THE AMERICAN MIDLAND NATURALIST.

Ruppia maritima L. Sea or Ditch-grass. West shore, C.S.H.
—N.M.G.

ZOSTERACEAE.

Zostera marina L. Eel-grass. Shores of C.S.H.—N.M.G.

SCHEUCHZERIAACEAE.

Triglochin maritima L. Sea-side Arrow-grass. Marsh, C.S.
H.—N.M.G.

ALISMACEAE.

Alisma subcordatum Raf. American Water plantain. Wood-
bury Bog, Woodbury, L. I.—G.H.H.

Sagittaria engelmanni J. Engelmann's Arrow-head. L. Ron-
konkema. (Ferguson List.)

Sagittaria graminea. Michx. Grass-leaved *Sagittaria*. C.S.H.
vicinity—N.M.G.

Sagittaria latifolia Willd. Broad-leaved Arrow-head. C.S.H.
vicinity.—J.A.H.

Sagittaria rigida Pursh. Sessile-fruited Arrow-head. Hoden-
pyl estate, Locust Valley, L. I.—N.M.G.

VALLISNERIACEAE.

Philotria canadensis (L) Mchx. Water-weed. 1st lake, C.
S.H.—N.M.G.

GRAMINEAE.

Agropyron repens Beauv. Couch-grass. Roadside, Fish
Hatchery, C.S.H.—N.M.G.

Agropyron sativum Lam. Dump, escaped from cultivation.
C.S.H.—N.M.G.

Agrostis alba L. Red-top. Common C.S.H.—D.S.J.

Agrostis hyemalis B. S. P. Rough Hair-grass. Near rail-
way station, C.S.H.—G.H.H.

Agrostis maritima Lam. Dense-flowered Bent-grass. North
Thicket, Jones Marsh.—G.H.H.

Agrostis perennans (Walt.) Tuckerm. Upland Bent-grass.
C.S.H.—J.A.H.

Alopecurus sp. L. Fox tail. Jones Marsh, C.S.H.—N.M.G.

Ammophila arenaria (L) Sea Sand-reed. Upper Beach, C.S.
H.—N.M.G.

Andropogon furcatus Muhl. Forked Beard-grass. Hempstead
Plains, Hicksville, L. I.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

- Andropogon virginicus* L. Virginia Beard-grass. C.S.H. vicinity.—J.A.H.
- Anthoxanthum odoratum* L. Sweet Vernal-grass. Near Blackford Hall, C.S.H.—G.H.H.
- Aristida tuberculosa*. Nutt. Sea-beach Triple-awned Grass. C.S.H.—Ferguson (2) J.A.H.
- Arrenatherum elatius* (L) Beauv. Oat-grass. C.S.H.—J. A.H.
- Avena sativa* Linn. Oats. Dump, C.S.H.—N.M.G.
- Bromus hordeaceus* L. Soft Chess. C.S.H. vicinity—J.A.H.
- Bromus racemosus* L. Upright Chess. C.S.H. vicinity.—J. A.H.
- Bromus tectorum* L. Downy Brome-grass. C.S.H.—J.A.H.
- Calamagrostis canadensis*, Beauv. Blue-joint Grass. Lake Ronkonkema, L. I.—G.H.H.
- Capriola Dactylon*. Pers. Bermuda-grass. Jones Marsh, C. S.H.—C.E.
- Cenchrus tribuloides* L. Bur-grass. C.S.H.—N.M.G.
- Chaetochloa glauca* (L) Scrib. Yellow Foxtail. Common C.S.H.—G.H.H.
- Chaetochloa viridis* (L) N. Green Foxtail-grass. C.S.H. vicinity.—J.A.H.
- Cinna arundinacea* L. Sweet Reed-grass. C.S.H.—N.M.G.
- Dactylis glomerata* L. Orchard-grass. Cock's foot. Lab. grounds, C.S.H.—C.E.
- Danthonia spicata*. Beauv. Common Wild Oat-grass. Hills above lakes. C.S.H.—N.M.G.
- Deschampsia flexuosa* (L) Trin. Wavy Hair-grass. Hills above lakes. C.S.H.—G.H.H.
- Diplachne fascicularis* Beauv. Clustered Salt-grass. C.S.H.—N.M.G.
- Distichlis spicata*. Greene. Marsh Spike-grass. Salt Marsh. C.S.H.—N.M.G.
- Echinochloa Crus-galli*. Beauv. Barnyard-grass. Hicksville near depot.—G.H.H.
- Eleusine indica* (L) Gaertner. Wire-Grass. C.S.H. vicinity.—D.S.J.
- Elymus virginicus* L. Sandspit. Terrell-grass. G.S.H.
- Eragrostis Eragrostis* (L) Karst. Love-grass. Sandspit, C. S.H. vicinity.—J.A.H.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

- Eragrostis pectinacea* Steud. Purple Love-grass. Near Railroad Station, C.S.H.—G.H.H.
- Eragrostis pilosa* Beauv. Small Tufted Love-grass. Salt Marsh, C.S.H.—G.H.H.
- Festuca elatior* L. Tall or Meadow Fescue-grass. C.S.H. Roadsides.—G.H.H.
- Festuca ovina* L. Sheep's Fescue-grass. C.S.H. vicinity. — G.H.H.
- Homalocenchrus oryzoides* (L) Rice Cut-grass. C.S.H. vicinity.—J.A.H.
- Homalocenchrus virginicus* (Willd.) Britton. White Grass. Jones Marsh, C.S.H.—C.E.
- Lolium perenne* L. Ray-grass. Near Catholic church, Huntington.—G.H.H.
- Muhlenbergia mexicana* (L.) Trin. Satin-grass. C.S.H.—J. A.H.
- Nothoholcus lanatus* (L.) Nash. Velvet-grass. Meadow or Woolly Soft-grass. Pastures, C.S.H. vicinity.—G.H.H.
- Panicularia canadensis* (Michx) Kuntze. 1st lake north of St. John's church. C.S.H.—G.H.H.
- Panicularia nervata* (Willd) Kuntze. Meadow-grass. C.S.H.—J.A.H.
- Panicum Boscii* Poir. Bosc's Panic-grass. C.S.H. vicinity—Jelliffe.
- Panicum capillare* L. Witch-grass. R. R. west of depot, C. S.H.—H.
- Panicum clandestinum* L. Corn Grass. R. R. west of depot and Jones Marsh. C.S.H.—G.H.H.
- Panicum depauperatum* L. Starved Panic-grass.—C.S.H.—J.A.H.
- Panicum dichotomum* L. Forked Panic-grass.—C. S. H.—of depot. C.S.H.—G.H.H.
- Panicum linearifolium* Scrib. Low White-haired Panic-grass. C.S.H.—J.A.H.
- Panicum meridionale* Ashe. Matting Panic-grass. Salt Marsh, C.S.H.—G.H.H.
- Panicum microcarpon* Muhl. Barbed Panic-grass. R. R. west of depot. C.S.H.—G.H.H.
- Panicum tennesseense* Ashe. Tennessee Panic-grass. C.S.H. vicinity.—J.A.H.

THE FLORA OF COLD SPRING HARBOR.

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THE AMERICAN MIDLAND NATURALIST.

- Panicum virgatum* L. Switch-grass, Wild Red-Top. C.S.H. vicinity.—N.M.G.
- Panicum wilcoxianum* Wilcox's Panic-grass. C.S.H. vicinity.—N.M.G.
- Phalaris Canariensis* L. Canary or Bird-seed-grass. Waste places. C.S.H.—N.M.G.
- Phleum pratense* L. Timothy. Herd's grass. Laboratory grounds, C.S.H.—N.M.G.
- Phragmites Phragmites* Karst, Read. Common Reed-grass. Gilgo Beach, L. I.; Jones Marsh, C.S.H.—N.M.G.
- Poa annua* (L.) Dwarf Meadow-grass. Low spear-grass, C. S.H.—J.A.H.
- Poa compressa* L. Wire-grass. Sandspit, Roadsides, C.S.H.—N.M.G.
- Poa pratensis* L. Kentucky Blue-grass. Fields, Cold Spring Harbor, C.S.H.—N.M.G.
- Savastana odorata* (L) Scrib. Holy Grass. Seneca grass, C.S.H.—Jelliffe.
- Schizachyrium scoparium* (Michx) Nash. Broom Beard-grass. Hempstead Plains, Hicksville, L. I.—N.M.G.
- Sorghastrum nutans* (L) Nash. Indian-grass. C.S.H.—N. M.G.
- Spartina cynosuroides* Marsh. Salt Reed-grass. Lloyds Point, C.S.H.—N.M.G.
- Spartina patens* Muhl. Salt-meadow grass. Salt Marsh, C. S.H.—N.M.G.
- Spartina stricta* (Ait) Roth. Salt Marsh-grass. Salt Marsh, C.S.H.—N.M.G.
- Sporobolus asper* Kunth. Long-leaved Rush-grass. Roadside on Sea Beach, C.S.H.—G.H.H.
- Syntherisma sanguinale* (L) Dulac. Large Crab-grass. Finger grass.—N.M.G.
- Tridens flava* L. Hitchc. Tall Red-top. R. R. West of depot, C.S.H.—G.H.H.
- Zea Mays*, L. Escaped from Cultivation, C.S.H.—N.M.G.

CYPERACEAE.

- Carex abscondita* Mackenzie. Thicket Sedge Ferguson (2), C.S.H.—J. A. Ferguson.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

— In diff. — *Stroph. 2-11*
and

THE AMERICAN MIDLAND NATURALIST.

Carex Asa Grayi Bailey. Gray's Sedge, C.S.H. vicinity.—J. A.H.

Carex canescens L. Silvery or Hoary Sedge, C.S.H.—J.A.H.

Carex cephalophora Muhl. Oval-headed Sedge, C.S.H.—J.A.H.

Carex crinita Lam. Fringed Sedge. Sickie Grass. C.S.H.—Jelliffe.

Carex digitalis Willd. Slender Wood Sedge, C.S.H.—J.A.H.

Carex flexuosa Muhl. Slender-stalked Sedge. Vicinity C.S.H.—J.A.H.

Carex folliculata L. Long Sedge C.S.H.—N.M.G.

Carex gynandra Schwein. Nodding Sedge. C.S.H.—J.A.H.

Carex hormathodes Fernald. Marsh Straw Sedge. Fresh and Brackish marshes, C.S.H.—Jelliffe.

Carex hystericina Muhl. Porcupine Sedge. Bog, C.S.H.—G.H.H.

Carex interior Bailey. Inland Sedge. C.S.H.—J.A.H.

Carex intumescens Rudge. Bladder Sedge, C.S.H.—G.H.H.

Carex laxiflora Lam. Loose-flowered Sedge. Vicinity, C.S.H.—J.A.H.

Carex lurida Wohl. Sallow Sedge. Vicinity, C.S.H.—J.A.H.

Carex pennsylvanica Lam. Pennsylvania Sedge. Vicinity, C.S.H.—J.A.H.

Carex rosea Schk. Stellate Sedge. Vicinity C.S.H.—J.A.H.

Carex scabrata Schw. Rough Sedge. Vicinity C.S.H.—J.A.H.

Carex scoparia canadensis Fernald. Pointed Broom Sedge. Vicinity, C.S.H.—J.A.H.

Carex sterilis Willd. Inland Sedge. C.S.H.—G.H.H.

Carex stipata Muhl. Awl-fruited Sedge. Vicinity C.S.H.—J. A.H.

Carex straminea Willd. Straw Sedge. Dog- grass. Vicinity C.S.H.—Jelliffe.

Carex stricta Lam. Tussock Sedge. Vicinity C.S.H.—C.E.

Carex tenuiflora Wahl. Sparse-flowered Sedge. Vicinity C.S.H.—N.M.G.

Carex tribuloides. Wahl. Blunt Broom Sedge. Vicinity, C.S.H.—J.A.H.

Carex virescens Muhl. Ribbed Sedge, C.S.H.—J.A.H.

Carex vulpinoidea Mchx. Fox Sedge. Jones Marsh, C.S.H.—C.E.

Cyperus diandrus Torr. Low Cyperus. Vicinity, C.S.H.—J. A.H.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

- Cyperus erythrorrhizus* (L) Muhl. Red-rooted Cyperus. Edge Salt marsh, C.S.H.—N.M.G.
- Cyperus filiculmis* Vahl. Slender Cyperus. Sandspit, ice house site, C.S.H.—N.M.G.
- Cyperus flavescens* L. Yellow Cyperus. Kettle Hole, near L. Ronkonkema, L. I.—N.M.G.
- Cyperus Grayi* Torr. Gray's Cyperus. Vicinity, C.S.H.—J. A.H.
- Cyperus speciosus* Vahl. Michaux's Cyperus. Vicinity, C.S.H. J.A.H.
- Cyperus strigosus* L. Straw-colored Cyperus. Salt Marsh, C.S.H.—G.H.H.
- Dulichium arundinaceum* (L) Britt. Glen Cove. L. I.—Jelliffe.
- Eleocharis acicularis* (L) R. and S. Needle, or Least, Spike-rush. Vicinity, C.S.H.—J.A.H.
- Eleocharis melanocarpa* Torr. Black fruited spike-rush,—N.M.G.
- Eleocharis olivacea* Torr. Bright Green Spike-rush. Salt Marsh, C.S.H.—N.M.G.
- Eleocharis palustris* (K) Roem and Schult. Creeping Spike-rush. Glen Cove.—Jelliffe.
- Eleocharis rostellata*. Torr. Beaked Spike-rush. Salt Marsh, C.S.H.—C.E.
- Eleocharis tenuis* (Willd.) Schultes. Slender Spike-rush. N. W. Thicket, Jones' Marsh, C.S.H.—C.E.
- Eriophorum tenellum* Nutt. Rough Cotton-grass. L. Ronkonkema.—N.M.G.
- Eriophorum* sp. Marsh at head of L. Ronkonkema.—N.M.G.
- Eriophorum virginicum* L. Virginia Cotton-grass, C.S.H. vicinity.—Jelliffe.
- Fimbristylis autumnalis* (L) Roem and Schult. Slender Fimbristylis, Glen Cove.—Jelliffe.
- Rynchospora alba*. Vahl. White Beaked-rush Marsh. At head of L. Ronkonkema.—N.M.G.
- Rynchospora glomerata* Vahl. Clustered Beaked-rush. Marsh at head of L. Ronkonkema.—G.H.H.
- Scirpus americanus*. Pers. Three-square. Foot of bank, Salt-marsh, C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

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Phillips

THE AMERICAN MIDLAND NATURALIST.

Scirpus atrovirens Muhl. Dark-green Bulrush. Glen Cove.
—D.S.

Scirpus cyperinus (L.) Kunth. Wool-grass. Jones Marsh, N.
W. Thicket—C.E.

Scirpus nanus Spring. Salt marsh, C.S.H.—N.M.G.

Scirpus paludosus A. Nelson. Prairie Bulrush. Vicinity, C.S.
H.—J.A.H.

Scirpus polyphyllus Vahl. Leafy Bulrush, C.S.H.—Jelliffe.

Scirpus robustus Pursh. Salt Marsh Bulrush. Jones Salt
Marsh, C.S.H.—N.M.G.

Scirpus subterminalis Torr. Water Club-rush, C.S.H.—Jel-
liffe.

Scirpus sylvaticus L. Wood Bulrush or Clubrush.—G.H.H.

Scirpus validus Vahl. American Great Bulrush. Mat-rush.
Glen Cove.—Jelliffe.

Scleria pauciflora Muhl. var. *caroliniana* (Willd.) Wood.
Papillose Nutrush. Hempstead Plains, Hicksville.—G.H.H.

Scleria triglomerata. Michx. Tall Nut-rush. Hempsted
Plain, Hicksville.—G.H.H.

Stenophyllus capillaris, Brit. Hair-like *Stenophyllus*. Hill
west of R. R. depot, C.S.H.—G.H.H.

ARACEAE.

Acorus Calamus L. Sweet Flag. Jones Marsh, C.S.H.—N.
M.G.

Arisaema triphyllum (L.) Schott. Jack-in-the-pulpit. Jones
woods, C.S.H.—N.M.G.

Spathyema foetida (L.) Raf. Skunk cabbage. Bog, 1st lake,
C.S.H.—N.M.G.

LEMNACEAE.

Lemna minor L. Lesser Duck-weed—Jelliffe.

Spirodela polyrhiza (L.) Schleid. Greater Duckweed, 2nd lake.
Cold Spring Harbor.—Jelliffe.

XYRIDACEAE.

Xyris caroliniana Small. Carolina Yellow-eyed Grass. Kettle
hole near Lake Ronkonkema, L. I.—N.M.G.

Xyris flexuosa Muhl. Slender Yellow-eyed Grass. Vicinity
C.S.H.—N.M.G.

ERIOCAULACEAE

Eriocaulon septangulare With. Seven-angled Pipewort. L.
Ronkonkema, Mineola, L. I.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

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THE AMERICAN MIDLAND NATURALIST.

COMMELINACEAE.

Commelina communis L. Asiatic Day-flower. Roadsides C.S. H.—N.M.G.

Commelina virginica L. Virginia Day-flower. C.S.H.—N. M.G.

PONTEDERIACEAE.

Pontederia cordata L. Pickerel-weed. L. Ronkonkema, L. I. —N.M.G.

JUNCACEAE.

Juncoides carolinae (S. Wats.) Kuntze. Hairy Wood-rush.—Jelliffe.

Juncoides campestre (L.) Kuntze. Common Wood-rush. Vicinity, C.S.H.—J.A.H.

Juncus acuminatus Mx. Sharp-fruited Rush. Vicinity, C.S. H.—J.A.H.

Juncus brachycephalus Buch. Small-headed Rush. Vicinity C.S.H.—G.H.H.

Juncus bufonius L. Toad Rush. Vicinity C.S.H.—J.A.H.

Juncus canadensis Gay. Canada Rush. Salt Marsh, C.S.H.—N.M.G.

Juncus effusus L. Common Rush. Vicinity C.S.H.—N.M.G.

Juncus Gerardi Loisel. Black-grass. Salt Marsh, C.S.H.—N.M.G.

Juncus Greenei Oakes and Tuckermann. Greene's Rush. Hempstead Plains, L. I.—N.M.G.

Juncus tenuis Willd. Slender Rush. Yard Rush. Hempstead Plains.—N.M.G.

MELANTHACEAE.

Chamaelirium sp. C.S.H.—G.H.H.

Chroosperma sp. C.S.H.—G.H.H.

Melanthium latifolium Lorr. Crisped Bunch-flower.—N.M.G.

LILIACEAE.

Aletris farinosa L. Star-grass. Ague. Hempstead Plain, Hicksville.—N.M.G.

Allium canadense L. Meadow Garlic.—Jelliffe.

Allium tricoccum Ait. Wild Leek. C.S.H., on roadsides. —N.M.G.

Allium vineale L. Wild Garlic. C.S.H., on roadsides.—N.M.G.

Hemerocallis fulva L. Day Lily. Roadsides, C.S.H.—N.M.G.

Lilium canadense L. Wild Yellow Lily.—Jelliffe.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

- Lilium philadelphicum* L. Wood Lily. Pine Barrens near St. James, L. I.—N.M.G.
- Lilium superbum* L. Turk's Cap Lily. Hodenpyl Estate, Locust Valley, L. I.—N.M.G.
- Lilium tigrinum* Ker. Tiger Lily. Roadsides, C.S.H.—N.M.G.
- Muscari botryoides* (L.) Hill. Grape Hyacinth. C.S.H. vicinity.—J.A.H.
- Ornithogalum umbellatum* L. Star-of-Bethlehem. Summer Snow-flake, Star-Flower.—N.M.G.
- Veratrum viride* Ait. American White Hellebore. Vicinity of lakes, C.S.H.—N.M.G.
- Yucca filamentosa* L. Adam's Needle. DeForest Estate, C. S.H., Fish Hatchery.—N.M.G.

CONVALLARIACEAE.

- Asparagus officinalis* L. Asparagus. C.S.H., vicinity. sandspit —N.M.G.
- Polygonatum biflorum* Ell. Hairy Solomon's Seal. Jones' Woods, near 1st lake, C.S.H.—N.M.G.
- Polygonatum commutatum*. ~~(Wait)~~ Ell. Smooth Solomon's Seal, C.S.H.—J.A.H.
- Vagnera racemosa* (L.) Wild Spikenard. Woods, vicinity C. S.H.—N.M.G.
- Vagnera stellata* (L.) Morong. Star-flowered Solomon's Seal. C.S.H.—Jelliffe.
- Unifolium canadense* (Desf.) Greene. False Lily-of-the-Valley. Woods near 1st lake.—G.H.H.
- Uvularia perfoliata* L. Perfoliate Bellwort. Vicinity C.S.H.—Jelliffe.
- Uvularia sessifolia* L. Sessile-leaved Bellwort. Vicinity C. S. H.—J.A.H.

TRILLIACEAE.

- Medeola virginiana* L. Indian Cucumber-root. Hill above 1st lake, C.S.H.—N.M.G.
- Trillium erectum* L. Ill-scented Wake-robin. Glen Cove. —Jelliffe.
- Trillium undulatum* Willd. Painted Wake-robin. Glen Cove. —Jelliffe.
- Trillium cernuum* L. Nodding Wake-robin. Vicinity C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

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THE AMERICAN MIDLAND NATURALIST.

- *Trillium grandiflorum* (Michx.) Salisb. Large-flowered Wake-robin.—N.M.G.

SMILACEAE.

- Smilax glauca* L. Glaucous-leaved Greenbrier. Woods, C.S.H.—G.H.H.
Smilax herbacea L. Carrion-flower. Woods. Vicinity C.S.H.—Jelliffe.
Smilax rotundifolia L. Greenbrier. Woods. Vicinity, C.S.H.—N.M.G.

AMARYLLIDACEAE.

- Hypoxis hirsuta* (L.) Coville. Yellow Star-grass. Hempstead Plains near Hicksville—N.M.G.

IRIDACEAE.

- Iris prismatica* Pursh. Narrow Blue-flag. C.S.H.—N.M.G.
Iris versicolor L. Larger Blue-flag. Salt Marsh, C.S.H.—N.M.G.
Sisyrinchium angustifolium Muhl. Pointed Blue-eyed Grass.—Jelliffe.
Sisyrinchium graminoides. Muhl. Stout Blue-eyed Grass. Vicinity C.S.H.—J.A.H.

ORCHIDACEAE.

- Arethusa bulbosa* L. Dragon's Mouth. Oyster Bay.—Jelliffe.
Blephariglottis ciliaris L. Rydb. Yellow-fringed Orchis. Hempstead Plains, Hicksville, L. I.—Jelliffe.
Blephariglottis lacera (Michx.) R. Br. Ragged or Green-fringed Orchis. Moist woods, 1st lake, C.S.H.—N.M.G.
Blephariglottis psycodes (L.) Rydb. Smaller purple-fringed Orchis. Oyster Bay.—Jelliffe.
Corallorrhiza maculata Raf. Large Coral-root.—Jelliffe.
Fissipes acaulis (Ait.) Small. Moccasin Flower Stemless Ladies'-Slipper. Bayville Woods about lakes.—N.M.G.
Gymnadeniopsis clavellata (Michx.) Rydb. Small Green Wood Orchis. Sphagnum Bog, West Side 3rd Lake, C.S.H.—D.S.J.
Ibidium Beckii (Lindl.) House. Little Ladies Tresses, C.S.H.—J.A.H.
Ibidium cernuum (L.) House. Nodding or Drooping Ladies' Tresses, C.S.H.—D.S.J.

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- Ibidium gracile* (Bigel) House. Slender Ladies' Tresses, C. S.H.—J.A.H.
Ibidium plantagineum (Raf.) House. Wide-leaved Ladies' Tresses. C.S.H.—D.S.J.
Ibidium praecox (Walt.) House. Grass-leaved Ladies' Tresses C.S.H.—D.S.J.
Limodorum tuberosum L. Frequent Grass-pink. Calopogon. C.S.H.—D.S.J.
Liparis liliifolia (L) L. C. Rich. Large Twayblade. C.S.H.—D.S.J.
Malaxis unifolia Michx. Green Adder's-Mouth, C.S.H., Oyster Bay—Jelliffe.
Peramium ophioides (Fernald) Rydb. Lesser Rattlesnake Plantain. Vicinity, C.S.H.—N.M.G.
Peramium pubescens (Willd.) Macm. Downy Rattlesnake Plantain. Moist woods near 2nd lake, C.S.H.—N.M.G.
Perularia flava (L.) Farwell. Tubercled Orchis. Small Pale-Green Orchis, Glen Cove.—Jelliffe.

DICOTYLEDONES.

SAURURACEAE.

- Saururus cernuus* L. Lizard's Tail. Glen Cove—Jelliffe.

JUGLANDACEAE.

- Hicoria alba* L. Roadsides. White-heart Hickory. Eugenics Record Office grounds, C.S.H.—N.M.G.
Hicoria glabra Spach. Pig-nut Hickory. Thicket in Jones Marsh, C.S.H.—N.M.G.
Juglans cinerea L. Butternut. Roadsides. C.S.H.—N.M.G.
Juglans nigra. L. Black Walnut. Roadsides, C.S.H.—N.M.G.

MYRICACEAE.

- Comptonia peregrina* (L) Coulter. Sweet Fern. C.S.H. vicinity.—N.M.G.
Myrica carolinensis Mill. Bayberry. De Forest Cemetery. C. S.H.—N.M.G.
Myrica cerifera L. Wax myrtle, C.S.H. vicinity.—N.M.G.
Myrica Gale L. Sweet Gale, C.S.H. vicinity.—N.M.G.

SALICACEAE.

- Populus alba* L. Aspen. Roadsides, C.S.H.—N.M.G.
Populus balsamifera L. Carolina Poplar. Vicinity, C.S.H.—N.M.G.

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- Populus candicans* Ait. Balm of Gilead, C.S.H. vicinity.—
N.M.G.
- Populus grandidentata* L. Large-toothed Aspen. Pine Barrens,
L.I. Vicinity C.S.H.—N.M.G.
- Populus heterophylla* L. Swamp Poplar, C.S.H. vicinity.—
Jelliffe.
- Populus italica* Moench. Lombardy Poplar, C.S.H. vicinity.
—Jelliffe.
- Populus tremuloides* Michx. Quiver-leaf, C.S.H. vicinity.—
Jelliffe.
- Salix alba* L. White Willow. Along streams and roadsides.
C.S.H.—N.M.G.
- Salix babylonica* L. Weeping Willow. Near streams, De
Forest Estate. C.S.H.—N.M.G.
- Salix discolor* Muhl. Pussy Willow, C.S.H. vicinity.—N.M.G.
- Salix fragilis* L. Crack Willow. C. S.H. vicinity.—N.M.G.
- Salix humilis* Marsh. Prairie Willow, Hempstead Plain. C.
S.H.—N.M.G.
- Salix lucida* Muhl. Shining Willow. C.S.H. vicinity.—J.A.H.
- Salix petiolaris* J. E. Smith. Slender Willow. C.S.H. vicinity
—J.A.H.
- Salix purpurea* L. Purple Willow. C.S.H. vicinity.—J.A.H.

BETULACEAE.

- Alnus incana* (L) Moench. Hoary Alder. E. shore C.S.H.—
D.S.J.
- Alnus rugosa* Spreng. Hazel Alder. Road near fish hatchery.
C.S.H.—N.M.G.
- Betula lenta* L. Cherry Birch. Moist woods, C.S.H.—N.M.G.
- Betula lutea* Michx. Yellow Birch. Woods near 2nd lake,
Fish hatchery Road, C.S.H.—N.M.G.
- Betula nigra* L. Red Birch. Oyster Bay.—N.M.G.
- Betula populifolia* Marsh. American White Birch, Road to
Eugenics Record Office.—N.M.G.
- Carpinus caroliniana* Walt. American Hornbeam. Vicinity
1st and 2nd lakes, C.S.H.—N.M.G.
- Corylus americana* Walt. Hazel-nut. Near 1st lake, C.S.H
—N.M.G.
- Ostrya virginiana* (Will) Willd. Iron-wood. C.S.H. vicinity.
—G.H.H.

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FAGACEAE.

Castanea dentata (Marsh) Borkh. American Chestnut. C. S.H. vicinity. Saplings only.—N.M.G.

Fagus grandifolia Ehrh. American Beech. Grounds Eugenic Record Office, C.S.H.—N.M.G.

Quercus alba L. White Oak. Vicinity lakes. C.S.H.—N.M.G.

Quercus coccinea Wang. Scarlet Oak. Huntington Rd., C.S.H.—N.M.G.

—*Quercus ellipsoidalis* Hill. Hill's Oak. Bayville near dunes.—N.M.G.

Quercus illicifolia Wang. Scrub Oak. Pine Barrens, St. James, L.I., Hempstead Plain, C.S.H. vicinity.—N.M.G.

Quercus imbricaria Mich. Shingle Oak. Hodenpyl Estate, Locust Valley, L. I.—N.M.G.

Quercus marilandica Muench. Barren Oak. Bayville, L. I., on dunes, C.S.H. vicinity.—N.M.G.

Quercus Muhlenbergii Engelm. Chestnut Oak, Locust Valley, Glen Cove, Oyster Bay.—Jelliffe.

—*Quercus nigra* L. Black-jack Oak. Oyster Bay.—Jelliffe.

Quercus palustris Muench. Pin Oak, Lloyd Point, C.S.H.—N.M.G.

—*Quercus Phellos* L. Willow Oak. Matheson Estate, Lloyd Point, C.S.H.—N.M.G.

Quercus prinoides Willd. Scrub Chestnut Oak. Hempstead Plain, C.S.H. vicinity, Hicksville, L. I.—N.M.G.

Quercus Prinus L. Rock Chestnut Oak. 1st and 2nd lakes. C.S.H.—N.M.G.

Quercus rubra L. Red Oak. 1st and 2nd lakes. C.S.H.—N.M.G.

Quercus stellata Wang. Post Oak. Hempstead Plains, Hicksville, Oyster Bay.—H.S.C.

Quercus velutina Lam. Black Oak, C.S.H. vicinity.—N.M.G.

ULMACEAE.

Celtis occidentalis L. Hackberry, C.S.H. vicinity.—N.M.G.

Ulmus alata Michx. Winged Elm, Hodenpyl Estate, Locust Valley, L. I.—N.M.G.

Ulmus americana L. American Elm. Roadsides, C.S.H. vicinity.—N.M.G.

Ulmus campestris L. English Elm, C.S.H. vicinity.—N.M.G.

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Ulmus fulva Mchx. Slippery Elm. Jones woods, C.S.H.,
Glen Cove, Oyster Bay.—Jelliffe.

MORACEAE.

Morus alba L. White Mulberry, Glen Cove.—Jelliffe.

Morus rubra (L.) Red Mulberry. Davenport estate, C.S.H.—
N.M.G.

Papyrius papyrifera (L) Kuntze. Paper Mulberry. Fish
Hatchery, C.S.H.—N.M.G.

CANNABINACEAE.

Cannabis sativa L. Hemp. C.S.H. vicinity.—G.H.H.

Humulus Lupulus L. Hop. C.S.H. vicinity.—N.M.G.

URTICACEAE.

Boehmeria cylindrica (L) Sw. False Nettle. C.S.H. vicinity.
—N.M.G.

Pilea pumila (L) A. Gray. Clear weed, C.S.H. village near
water and on sidewalks.—G.H.H.

Urtica dioica L. Stinging Nettle, C.S.H. vicinity.—N.M.G.

Urtica gracilis Ait. Slender Nettle. C.S.H. vicinity.—N.M.G.

Urticastrum divaricatum (L.) Kuntze. Wood Nettle.—Jelliffe.

SANTALACEAE.

Comandra umbellata (L.) Bastard Toad-flax. Hempstead
Plain, Hicksville.—N.M.G.

ARISTOLOCHIACEAE.

?—*Aristolochia macrophylla* Lam. Dutchman's Pipe. On barn
near Carnegie buildings, C.S.H.—N.M.G.

Aristolochia Serpentaria L. Virginia Snakeroot. Glen Cove.
—Jelliffe.

—*Asarum canadense* L. Indian Ginger. Havemeyer Estate, C.
S.H. vicinity.—N.M.G.

Hexastylis virginica (L) Small. Virginia Hexastylis. Have-
meyer Estate, C.S.H. vicinity.—G.H.H.

POLYGONACEAE.

Fagopyrum Fagopyrum (L) Karst. Buckwheat, C.S.H. vicini-
ty.—Jelliffe.

Persicaria amphibia (L) S. F. Gray. Water Persicaria,
Oyster Bay, C.S.H. vicinity.—Jelliffe.

Persicaria Careyi (Olney) Green, Carey's Persicaria. Swamp
near L. Ronkonkema.—N.M.G.

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- Persicaria Hydropiper* L. (Opiz.) Yater Pepper. C.S.H. vicinity.—J.A.H.
- Persicaria hydropiperoides* Mchx. Mild Water Pepper. C.S.H. vicinity.—Jelliffe.
- Persicaria lapathifolia* (L.) S. F. Gray. Dock-leaved Persicaria. West Shore, C.S.H.—Jelliffe.
- Persicaria orientalis* (L.) Spach. Prince's Feather. Roadsides, C.S.H.—N.M.G.
- Persicaria pennsylvanica* Small. Pennsylvania Persicaria. Near R. R. depot, C.S.H.—G.H.H.
- Persicaria Persicaria* L. Lady's Thumb. C.S.H., Moist ground.—N.M.G.
- Persicaria punctata* (Ell.) Small. Water Smart Weed. Damp soil near Eugenic Record Office.—C.E.
- Persicaria punctata* (Ell.) var. *leptostachyum* Meisn. Water Smartweed. C.S.H., Lake marsh.—N.M.G.
- Pleuropterus Zuccarinii* Small. Japanese Knotweed. C.S.H. vicinity.—Jelliffe.
- Polygonella articulatum* L. Coast Jointweed, C.S.H. vicinity.—N.M.G.
- Polygonum arifolium* L. Halberd-leaved Tear-thumb. C.S.H., 1st lake shore.—N.M.G.
- Polygonum aviculare* L. Knotgrass. Waste places, vicinity C.S.H.—N.M.G.
- Polygonum erectum* L. Erect Knotweed, C.S.H. vicinity.—J.A.H.
- Polygonum maritimum* L. Seaside Knotweed. Salt Marsh, C.S.H.—H.S.C.
- Polygonum tenue* Michx. Slender Knotweed. Oyster Bay, C.S.H. vicinity.—Jelliffe.
- Rumex acetosella* L. Sheep Sorrell. Fields, C.S.H.—N.M.G.
- Rumex Brittanica* L. Great Water-Dock. Swamp, C.S.H.—G.H.H.
- Rumex crispus* L. Curled Dock. Roadsides, C.S.H.—N.M.G.
- Rumex obtusifolius* L. Bitter Dock. Roadsides, C.S.H.—N.M.G.
- Tiniaria Convolvulus*. (L) Webb and Mog. Black Bind Weed. C.S.H. vicinity.—J.A.H.
- Tovara virginiana*, Raf. Virginia Knotweed. Jones Marsh, C.S.H.—C.E.

THE FLORA OF COLD SPRING HARBOR.

THE AMERICAN MIDLAND NATURALIST.

Tracaulon sagittatum (L.) Small. Arrow-leaved Tear-thumb.
Salt Marsh and Jones Woods, C.S.H.—C.E.

AMARANTHACEAE.

Amaranthus graecizans L. Tumbleweed. Common. C.S.H.—
G.H.H.

Amaranthus pumilis Raf. Coast Amaranth.—Jelliffe.

Amaranthus retroflexus L. Green Amaranth. Common, C.
S.H.—N.M.G.

CHENOPODIACEAE.

Atriplex arenaria Nutt. Sea-beach Atriplex. Sand Spit, C.
S.H.—N.M.G.

Atriplex hastata L. Halberd-leaved Orache. Salt Marsh, C.
S.H.—N.M.G.

Chenopodium album L. Lamb's Quarters. Roadsides, C.S.
H.—N.M.G.

Chenopodium ambrosioides L. Mexican Tea. Dump, Carne-
gie Inst., C.S.H.—N.M.G.

Chenopodium Bonus-Henricus L. Good King Henry. Glen
Cove.—Jelliffe.

Chenopodium boscianum Moq. Bosc's Goose-foot. C.S.H.
vicinity.—G.H.H.

Chenopodium urbicum L. Upright Goosefoot. Oyster Bay.—
Jelliffe.

Chenopodium murale L. Nettle-leaved Goosefoot. Oyster Bay.
—Jelliffe.

Dondia linearis (Ell.) Heller. Tall Sea-Blite.—N.M.G.

Dondia maritima L. Druce, Low Sea-Blite. Salt Marsh, C.
S.H.—N.M.G.

Roubieva multifida (L) Moq. Cut-leaved Goosefoot. C.S.H.
—N.M.G.

Salicornia ambigua Michx. Woody Glasswort, Salt Marshes,
C.S.H.—N.M.G.

Salicornia Bigelovii Torn. Bigelow's Glasswort. Sand Spit,
C.S.H.—Jelliffe.

Salicornia europea L. Jointed Glasswort. Salt marsh, C.S.
H.—N.M.G.

Salsola Kali. L. Saltwort. Sandy beaches, C.S.H.—N.M.G.

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THE AMERICAN MIDLAND NATURALIST.

PHYTOLACCACEAE.

Phytolacca Americana L. Poke. Common. C.S.H. vicinity.
—N.M.G.

CORRIGIOLACEAE.

Anychia canadensis (L) B.S.P. Slender Forked Chickweed,
C.S.H., Oyster Bay.—Jelliffe.

AIZOACEAE.

Mollugo verticillata L. Carpet-weed. Sandspit, C.S.H.;
Matheson's Estate, Lloyd Neck, L. I.—N.M.G.
Sesuvium maritimum (Walt.) B.S.P. Sea Purslane, C.S.H.
—N.M.G.

PORTULACACEAE.

Claytonia virginica L. Spring Beauty, C.S.H. vicinity. —
J.B.W.
Portulaca grandiflora Lindl. Garden Portulaca, Cultivated,
C.S.H. vicinity.—N.M.G.
Portulaca oleracea L. Purslane, Fields and waste places, C.
S.H.—N.M.G.
Portulaca pilosa L. Hairy Portulaca, Gilgo Beach, L. I.—
N.M.G.

ALSINACEAE.

Cerastium viscosum L. Mouse-ear Chickweed.—Jelliffe.
Moehringia laterifolia (L) Fenzl. Blunt-leaved Sandwort.—
Jelliffe.

CARYOPHYLLACEAE.

Agrostemma Githago (L.) Lam. Corn Cockle. Barnyard, C.
S.H.—G.H.H.
Alsine borealis Bigel. Northern Stitchwort. C.S.H., shaded
and wet places.—N.M.G.
Alsine longifolia Muhl. Long-leaved Stitchwort. Roadsides,
C.S.H.—G.H.H.
Alsine media L. Common Chickweed, C.S.H. vicinity—G.H.H.
Arenaria serpyllifolia L. Thyme-leaved Sandwort. C.S.H.
vicinity.—J.A.H.
Cerastium arvense L. Field Chickweed, C.S.H.—N.M.G.
Cerastium semidecandrum L. Small Chickweed. C.S.H. vicin-
ity.—N.M.G.
Dianthus armeria L. Deptford Pink, C.S.H. vicinity, in
fields.—N.M.G.

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THE AMERICAN MIDLAND NATURALIST.

- Honkenya peploides* (L) Ehrb. Sea-beach Sandwort. Gilgo Beach, L.I.—N.M.G.
- Lychnis alba* M. White Campion. Roadsides, C.S.H.—N.M.G.
- Lychnis coronaria* L. Mullein Pink, Hicksville.—N.M.G.
- Lychnis dioica* L. Red Campion. Waste Ground, roadsides, C.S.H.—N.M.G.
- Sagina procumbens* L. Procumbent Pearlwort. Jones Marsh, C.S.H.—C.E.
- Saponaria officinalis* L. Bouncing Bet. Bayville, L. I.; roadsides, C.S.H.—N.M.G.
- Scleranthus annuus* L. German Knotgrass. Vicinity Biological Lab., C.S.H.—G.H.H.
- Silene antirrhina* L. Sleepy Catchfly.—Jelliffe.
- Silene carolinana* Walt. Wild Pink. Vicinity C.S.H.—J.A.H.
- Silene latifolia* Mill. Bladder Campion, C.S.H. vicinity.—N.M.G.
- Silene noctiflora* L. Night-flowering Catchfly. C.S.H., Oyster Bay.—Jelliffe.
- Silene stellata* L. Starry Campion. Woods near roadside, C.S.H.—N.M.G.
- Tissa marina* L. (Britton) Salt-marsh Sand Spurry. Brackish sands, C.S.H. vicinity.—N.M.G.

CERATOPHYLLACEAE.

- Ceratophyllum demersum* L. Horn Weed. Lakes, C.S.H.—N.M.G.

NELUMBONACEAE.

- Nelumbo lutea* (Willd.) Pers. American Lotus.—Jelliffe.

NYMPHAEACEAE.

- Brasenia schreberi* Gmel. Water Shield. 1st lake, C.S.H.; Spectacle Pond, St. James, L.I.—N.M.G.
- Castalia odorata* (Cut.) Sweetscented Water Lily. 1st lake, C.S.H.—N.M.G.
- Nymphaea advena* Ait. Large Yellow Pond Lily. Spectacle pond, St. James, L. I.—N.M.G.

MAGNOLIACEAE.

- Liriodendron Tulipifera* L. Tulip tree. C.S.H. vicinity.—N.M.G.

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RANUNCULACEAE.

- Actaea alba* (L) Mill. White Baneberry. Woods near 1st lake, C.S.H.—N.M.G.
- Anemone quinquefolia* L. Wind-flower. Vicinity C.S.H.—N.M.G.
- Anemone virginiana* L. Tall Anemone. Woods, C.S.H.—J. A. H.
- Aquilegia canadensis*... L. Wild Columbine. Woods, C.S.H.—J.A.H.
- Caltha palustris* L. Marsh Marigold. Vicinity C.S.H.—N.M.G.
- Cimicifuga racemosa* (L) Nutt. Black Snakeroot. Hodenpyl Estate, Locust Valley, L. I.—N.M.G.
- Clematis virginiana* L. Virginia Virgin's Bower. Fish Hatchery, C.S.H.—N.M.G.
- Helleborus viridis* L. Green Hellebore. Glen Cove.—N.M.G.
- Hepatica acutiloba*, D. C. Sharp-lobed Liverwort, Havemeyer Estate, near Oyster Bay, L. I.—N.M.G.
- Hepatica hepatica* (L) Karst. Round-lobed Liverwort. Havemeyer Estate.—N.M.G.
- Ranunculus abortivus* L. Kidney-leaved Crowfoot. C.S.H. vicinity.—N.M.G.
- Ranunculus acris* L. Tall Buttercup, C.S.H. vicinity.—N.M.G.
- Ranunculus bulbosus* L. Bulbous Buttercup. C.S.H. vicinity.—G.H.H.
- Ranunculus recurvatus*. Poir. Rough Crowfoot, C.S.H. vicinity.—N.M.G.
- Ranunculus repens* L. Creeping Buttercup. Along ditches, C.S.H.—N.M.G.
- Ranunculus sceleratus* L. Celery-leaved Crowfoot. Oyster Bay.—Jelliffe.
- Ranunculus septentrionalis* Poir. Marsh Buttercup, C.S.H. vicinity.—N.M.G.
- Syndesmon thalictroides* (L) Hoffmg. Rue Anemone. Common throughout island.—Jelliffe.
- Thalictrum dioicum* L. Early Meadow-Rue. C.S.H. vicinity.—N.M.G.
- Thalictrum polygamum* Muhl. Fall Meadow Rue. Common throughout island.—Jelliffe.

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THE AMERICAN MIDLAND NATURALIST.

Thalictrum revolutum L. Waxy Meadow-Rue. Hempstead Plains, Hicksville, L. I.—N.M.G.

BERBERIDACEAE.

Berberis vulgaris L. Common Barberry. De Forest Estate; Carnegie Inst., C.S.H.—N.M.G.

MENISPERMACEAE.

Menispermum canadense L. Canada Moonseed. Road to Sandspit, C.S.H.—N.M.G.

LAURACEAE.

Benzoin aestivale (L) Nees. Spice Bush. Roadsides, C.S.H.—N.M.G.

Sassafras Sassafras (L) Karst. Sassafras Tree. Roadsides, Woods, C.S.H.—N.M.G.

PAPAVERACEAE.

Chelidonium majus L. Celandine, C.S.H., roadsides.—N.M.G.

Macleya cordata (Willd.) R. Br. Plume Poppy. Lloyd's Point, L.I. Escaped from cultivation.—N.M.G.

Papaver dubium L. Long Smooth-fruited Poppy. Oyster Bay, Fields.—Jelliffe.

Sanguinaria canadensis L. Bloodroot. C.S.H. vicinity—N.M.G.

FUMARIACEAE.

Fumaria officinalis L. Fumitory. C.S.H. vicinity.—N.M.G.

CRUCIFERAE.

Alliaria alliaria (L) Britton. Hedge Garlic. Vicinity Biological Lab., C.S.H.—G.H.H.

Arabis lyrata L. Lyre-leaved Rock-cress. Vicinity C.S.H.—G.H.H.

Armoracia Armoracia (L.) Britton. Horse-radish. Vicinity C.S.H.—N.M.G.

Barbarea Barbarea (L.) MacM. Yellow Rocket.—G.H.H.

Barbarea stricta (Andre) Marsh. Erect-fruited Winter-cress. C.S.H.—Jelliffe.

Barbarea verna (Mill.) Aschers. Land Cress. Roadsides at Salt Marsh, C.S.H.—G.H.H.

Brassica campestris L. var. *Napus* (L.) Turnip. Roadside, C.S.H.—N.M.G.

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- Brassica nigra* (L.) Koch. Black Mustard. Waste places, C.S.
H.—N.M.G.
- Brassica oleracea* L. Cabbage. Cultivated, C.S.H.—N.M.G.
- Bursa bursa-pastoris* (L.) Britton. Shepherd's purse. Waste
ground, C.S.H.—G.H.H.
- Cakile edentula* (Bigel.) Hook. American Sea Rocket. Sand
of upper beach, C.S.H.—N.M.G.
- Carara didyma* (L.) Britton. Lesser Wart-cress. Vicinity
C.S.H.—G.H.H.
- Cardamine hirsuta* L. Hairy Bitter-cress. Oyster Bay, C.S.
H.—N.M.G.
- Cardamine pennsylvanicum* Muhl. Pennsylvania Bitter-cress.
C.S.H.—N.M.G.
- Diploxys muralis* (L.) D.C. Sand Rocket. Roadsides, C.
S.H.—N.M.G.
- Erysimum officinale* L. Hedge Mustard. Waste places, C.S.H.
—N.M.G.
- Hesperis matronalis* L. Dame's Rocket. Vicinity, C.S.H.—G.
H.H.
- Lepidium campestre* L. Field Cress. Vicinity C.S.H.—N.
M.G.
- Lepidium virginicum* L. Wild Pepper-grass Vicinity C.S.H.—
—N.M.G.
- Norta altissima* (L.) Britton. Tall Sisymbrium. Waste
places, C.S.H.—N.M.G.
- Radicula sylvestris* L. Druce. Roadside near depot, C.S.H.
—G.H.H.
- Raphanus sativus* L. Garden Radish. Cultivation C.S.H.—
G.H.H.
- Sinapis alba* L. Escaped. White mustard.—Jelliffe.
- Sisymbrium Nasturtium—aquaticum* (L.) True water-cress.
Old fish runway, C.S.H.—N.M.G.
- Thlaspi arvense* L. Field Penny-cress. Waste places, C.S.
H.—G.H.H.

SARRACENIACEAE.

- Sarracenia flava* L. Trumpets. Hodenpyl Estate, Locust Val-
ley, N. Y.—N.M.G.
- Sarracenia purpurea* L. Pitcher Plant. Hodenpyl Estate,
Locust Valley, N. Y.—N.M.G.

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DROSERACEAE.

- Drosera filiformis* Raf. Thread-leaved Sundew. C.S.H.—N.M.G.
Drosera intermedia Hayne. Spatulate-leaved Sundew. Pine Barren Bogs; Shores L. Ronkonkema, L. I.—N.M.G.
Drosera longifolia L. Oblong-leaved Sundew. L. Ronkonkema, L. I.—N.M.G.
Drosera rotundifolia L. Round-leaved Sundew. C.S.H., between 2nd and 3d lakes.—N.M.G.

CRASSULACEAE.

- Penthorum sedoides* L. Ditch Stonecrop. Woodbury, L. I.—N.M.G.
Sedum acre. L. Wall-pepper. DeForest Cemetery, C.S.H.—N.M.G.
Sedum Telephium L. Orpine. Roadsides, C.S.H.—N.M.G.
Sedum ternatum Mx. Wild Stonecrop. C.S.H. village, roadside.—G.H.H.

SAXIFRAGACEAE.

- Chrysoplenium americanum* L. Golden Saxifrage. Creek between 1st and 2nd lakes, C.S.H.—N.M.G.
Heuchera americana L. Alum-root. Oyster Bay.—Jelliffe.
Micranthes pennsylvanica (L) Haw. Swamp Saxifrage. Glen Cove.—Jelliffe.
Micranthes virginicensis (Mx.) Early Saxifrage. Vicinity, C.S.H.—N.M.G.

HAMAMELIDACEAE.

- Hamamelis virginiana* L. Witch-Hazel, C.S.H. vicinity.—N.M.G.
Liquidambar Styraciflua L. Sweet Gum. Cultivated. C.S.H. vicinity.—N.M.G.

GROSSULARIACEAE.

- Ribes americanum* Mill. Wild Black Currant. C.S.H.—N.M.G.
Ribes nigrum L. Black Currant. Escaped, C.S.H.—N.M.G.
Ribes triste Pall. American Red Currant. C.S.H.—N.M.G.

PLATANACEAE.

- Platanus occidentalis* L. Plane Tree. C.S.H. vicinity.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

ROSACEAE.

- Agrimonia gryposephala*. Wallr. Tall Hairy Agrimony.
Jones Marsh, C.S.H.—C.E.
- Agrimonia parviflora*. Soland. Many-flowered Agrimony.
C.S.H.—Jelliffe.
- Agrimonia rostellata* Wallr. Woodland Agrimony.—Jelliffe.
- Duchesnea indica* Andr. Mock Strawberry. Roadsides, C.
S.H.—N.M.G.
- Filipendula rubra* (Hill.) Robinson. Queen-of-the-Prairie.
Escaped from cultivation, Lloyd's Point.—N.M.G.
- Fragaria vesca* L. Hedge Strawberry. Vicinity C.S.H.—J.
A.H.
- Fragaria virginiana* Duchesne. Virginia Strawberry. Road-
sides, C.S.H.—N.M.G.
- Geum canadense* Jacq. White Avens. Moist woods, C.S.H.—
N.M.G.
- Geum virginianum* L. Rough Avens. Roadsides, C.S.H.—
N.M.G.
- Potentilla argentea* L. Silvery Cinquefoil. Roadsides, C.S.H.
—G.H.H.
- Potentilla canadensis* L. Five-finger. Hempstead Plains, St.
James, L. I., Pine Barrens.—N.M.G.
- Potentilla intermedia* L. Downy Cinquefoil. Waste places,
roadsides, C.S.H.—N.M.G.
- Potentilla montspeliensis* L. Rough Cinquefoil. Road to Sand
spit, C.S.H.—J.A.H.
- Potentilla montspeliensis* (L.) var. *norvegica* Rybd. Vicinity
C.S.H.—J.A.H.
- Potentilla Robbinsiana* Oakes. Robbins' Cinquefoil, C.S.H.
vicinity.—J.A.H.
- Rosa carolina* L. Wild Rose. Woodbury Bog, Woodbury, L.
I.—N.M.G.
- Rosa rubiginosa* L. Sweetbrier. Jones Marsh, C.S.H.—C.E.
- Rubus alleghaniensis*. Porter. Mountain Blackberry. Road-
side, Salt Marsh, C.S.H.—H.S.C.
- Rubus baileyanus* Britton. Bailey's Blackberry. C.S.H.
G.H.H.
- Rubus canadensis* Linn. Millspaugh's Blackberry. Jones'
woods, C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

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- Rubus hispidus* L. Running Swamp Blackberry. Vicinity C.S.H.—N.M.G.
- Rubus neglectus* Peck. Purple Wild Raspberry. Huntington Hill road, C.S.H.—N.M.G.
- Rubus occidentalis* L. Black Raspberry. Vicinity C.S.H.—J.A.H.
- Rubus odoratus* L. Thimbleberry. C.S.H.—N.M.G.
- Rubus phoenicolasius* Maxim. Wineberry. Escaped from cultivation, C.S.H.—N.M.G.
- Rubus procumbens* Muhl. Dewberry. Roadsides, C.S.H.—N.M.G.
- Rubus strigosus* Mchx. Wild Red Raspberry. Vicinity C.S.H.—J.A.H.
- Sanguisorba canadensis* L. American Great Burnet. Common throughout island.—Jelliffe.
- Schizonotus sorbifolius* L. Sorb-leaved Schizonotus. Vicinity C.S.H.—N.M.G.
- Sibbaldiopsis tridentata* (Soland) Rydb. Three-toothed Cinquefoil. Hodenpyl estate, Locust Valley, L. I.—N.M.G.
- Spiraea latifolia* Borkh. American Meadow-Sweet. Roadsides, C.S.H.—N.M.G.
- Spiraea tomentosa* L. Hardhack. L. Ronkonkema, L. I. —N.M.G.

MALACEAE.

- Amelanchier canadensis* Medic. Service Berry. C.S.H.—N.M.G.
- Amelanchier spicata*, (Lam.) C. Noch. Low June Berry, C. S.H.—N.M.G.
- Aronia arbutifolia* Pers. Red Choke-berry. Vicinity C.S.H.—N.M.G.
- Aronia atropurpurea* Britton. Purple-fruited Choke-berry. Pine barrens, L.I.—N.M.G.
- Aronia melanocarpa* (Michx) Britton. Black Choke-berry. C.S.H.—N.M.G.
- Crataegus Oxyacantha* L. English Hawthorne. Davenport property, C.S.H.—N.M.G.
- Malus malus* (L.) Britton. Apple. Vicinity C.S.H.—N.M.G.
- Pyrus communis* L. Choke Pear. Cultivated. C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

THE AMERICAN MIDLAND NATURALIST.

Sorbus americana Marsh. American Mountain Ash.
Cultivated C.S.H.—N.M.G.

Sorbus Aucuparia. L. European Mountain Ash. C.S.H.—
N.M.G.

AMYGDALACEAE.

Prunus Avium L. Crab Cherry. Road near 1st lake C.S.H.
—N.M.G.

Prunus Cerasus L. Sour Cherry. Vicinity C.S.H.—N.M.G.

Prunus maritima Wong. Beach Plum. Bayville, L.I., Sand
dunes.—N.M.G.

CAESALPINACEAE.

Cassia marilandica. L. Wild Senna. Oyster Bay.—Jelliffe.

Chamaecrista fasciculata (Michx.) Greene Prairie Pea. C.S.
H.—N.M.G.

Chamaecrista nictitans (L) Moench. Sensitive Pea. In fields
C.S.H.—N.M.G.

Gleditsia triacanthos L. Black Locust. C.S.H.—N.M.G.

FABACEAE.

Amorpha fruticosa. L. False Indigo. Davenport Estate, C.
S.H.—N.M.G.

Baptisia tinctoria L. R. Bc. Wild Indigo. Vicinity 3rd Lake,
C.S.H.; Hempstead Plain.—N.M.G.

Cracca virginiana L. Goat's Rue. Vicinity C.S.H.—N.M.G.

Falcata comosa. Kuntze. Hog Pea-nut. Jones woods near
first lake.—G.H.H.

Glycine sp? Jones' woods, Vicinity C.S.H.—G.H.H.

Lathyrus latifolius L. Everlasting Pea. In gardens, escap-
ing to thickets, C.S.H.—N.M.G.

Lathyrus maritimus (L) Bigel. Beach Pea. Beaches, C.S.H.
and vicinity—N.M.G.

Lespedeza capitata Michx. Round-headed Bush-clover. R.R.
west of depot, C.S.H.—G.H.H.

Lespedeza frutescens. Britton. Wand-like Bush-clover. R.R.
west of Depot, C.S.H.—G.H.H.

Lespedeza hirta L. Hairy Bush-Clover. Pine Barrens near
St. James, L. I.—N.M.G.

Lespedeza repens. Creeping Brush-Clover, R.R. west of De-
pot, C.S.H.—N.M.G.

Lespedeza virginica L. Slender Bush- Clover. R.R. west of
depot, C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

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- Lupinus perennis* L. Wild Lupine. Syosset,—H.S.C.
Medicago lupulina L. Hop Clover. C.S.H.—J.A.H.
Medicago sativa L. Alfalfa. C.S.H.—N.M.G.
Meibomia canescens Kuntze. Hoary Tick-Trefoil. Near Syosset.—H.S.C.
Meibomia grandiflora (Walt.) Kuntze. Pointed-leaved Tick-Trefoil.—N.M.G.
Meibomia marilandica (L.) Kuntze. Smooth Small-leaved Tick-Trefoil. Oyster Bay.—N.M.G.
Meibomia Michauxii Vail. Prostrate Tick-Trefoil. R.R. west of depot, C.S.H.—G.H.H.
Meibomia nudiflora (L.) Kuntze. Naked-flowered Tick-Trefoil. Woods near Eugenics Record Office.—N.M.G.
Meibomia paniculata (L.) Kuntze. Panicked Tick-Trefoil. Oyster Bay.—N.M.G.
Meibomia rigida Kuntze. Rigid Tick-Trefoil. C.S.H. vicinity.—N.M.G.
Melilotus alba. Desr. White Melilot. Roadside, C.S.H. —N.M.G.
Melilotus officinalis Lam. Yellow Melilot. C.S.H., in fields.—N.M.G.
Robinia pseudoacacia L. Locust-tree. Vicinity C.S.H.—N.M.G.
Strophostyles helvola (L.) Britton. Trailing Wild Bean. Sand spit, C.S.H.—N.M.G.
Stylosanthes biflora (L.) B.S.P. Pencil Flower. Syosset.—H.S.C.
Trifolium agrarium L. Yellow Hop-Clover. C.S.H., sandy fields, roadsides.—N.M.G.
Trifolium arvense L. Rabbit-foot. Gravelly soil, roadsides, C.S.H.—N.M.G.
Trifolium hybridum L. Alsatian Clover. Fields and roadsides, C.S.H.—N.M.G.
Trifolium pratense L. Red Clover. Roadsides and fields, C.S.H.—N.M.G.
Trifolium procumbens L. Low Hop-Trefoil. Vicinity, C.S.H.—N.M.G.
Trifolium repens L. White Clover. Roadsides, Lawns, C.S.H.—N.M.G.
Vicia Cracca L. Cow Vetch. In fields, C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

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THE AMERICAN MIDLAND NATURALIST.

Vicia tetrasperma L. Slender Vetch. Roadsides, C.S.H.—G. H.H.

Wisteria sinensis Sweet. Chinese Wisteria. Escaped, cultivated, C.S.H.—N.M.G.

GERANIACEAE.

Geranium Bicknellii Britton. Bicknell's Crane's-bill. C.S.H.—N.M.G.

Geranium maculatum L. Spotted Crane's-bill. Woods, C.S. H., Hempstead Plain,—N.M.G.

Geranium pusillum Burm. Small flowered Crane's-bill. Vicinity C.S.H.—N.M.G.

OXALIDACEAE.

Xanthoxalis grandis. Small. Great Yellow Wood-sorrel. C. S.H.—N.M.G.

Xanthoxalis corniculata (L) Small. Yellow Procumbent Wood-sorrel. Vicinity C.S.H.—N.M.G.

Xanthoxalis stricta (L.) Small. Upright Yellow Wood-sorrel. Roadsides, C.S.H.—G.H.H.

LINACEAE.

Cathartolinum floridanum (Planch) Small. Florida Yellow Flax—Jelliffe.

Cathartolinum medium (Planch) Small. Stiff Yellow Flax. Jones Marsh, C.S.H.—C.E.

Linum usitatissimum L. Flax. Pine Barrens, L. I.—G.H.H.

Millegrana Radiola (L.) All-seed. Vicinity C.S.H.—G.H.H

BALSAMINACEAE.

Impatiens Balsamina Linn. Touch-me-not. Jones Marsh, C. S.H.—N.M.G.

Impatiens biflora Walt. Spotted Touch-me-not. S. S. H. Moist woods.—N.M.G.

Impatiens noli-tangere L. Jones Marsh, C.S.H.—N.M.G.

RUTACEAE.

Ptelea trifoliata L. Three-leaved Hop-tree, C.S.H. village.—N.M.G.

Zanthoxylum americanum Mill. Prickly Ash. Oyster Bay, Glen Cove.—Jelliffe.

SIMARUBACEAE.

Ailanthus glandulosa Desf. Ailanthus. Vicinity C.S.H. — N.M.G.

THE FLORA OF COLD SPRING HARBOR.

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THE AMERICAN MIDLAND NATURALIST.

POLYGALACEAE.

Polygala Nuttalli F. and G. Nuttall's Milkwort. Vicinity C.S. H.—N.M.G.

Polygala polygama Walt. Racemed Milkwort. Hempstead Plains, L. I.—N.M.G.

Polygala verticillata L. Whorled Milkwort. Vicinity C.S.H.—N.M.G.

Polygala viridescens L. Purple Milkwort. Hempstead Plain, Hicksville, L. I. C.S.H. vicinity.—N.M.G.

EUPHORBIACEAE.

Acalypha virginica L. Mercury-weed. Vicinity C.S.H.—N. M.G.

Chamaesyce humistrata, (Engelm.) Small. Hairy Spreading Spurge. Common.—N.M.G.

Chamaesyce maculata L. Small. Milk Purslane. R.R., west of Depot C.S.H.—G.H.H.

Chamaesyce polygonifolia (L) Small. Seaside Spurge. Upper Beach, C.S.H.—N.M.G.

Ricinus communis L. Castor Bean.—N.M.G.

Tithymalopsis corollata (L) Kl. and Garcke. Flowering Spurge. Matheson Estate, Lloyd's Neck.—N.M.G.

Tithymalopsis Ipecacuanhae (L) Small. Wild Ipecac. Vicinity C.S.H.—G.H.H.

Tithymalus Cyparissias (L) Hill. Cypress Spurge.—N.M.G.

CALLITRICHACEAE.

Callitriche heterophylla Pursh. Larger Water-Starwort. C. S.H. vicinity Fishpond.—N.M.G.

BUXACEAE.

Pachysandra procumbens Mchx. Alleghany Mountain Spurge. Hicks Nursery, Westbury, L. I.—N.M.G.

ANACARDIACEAE.

Rhus copallina L. Dwarf Black Sumac, C.S.H.; Hempstead Plains, L. I.—N.M.G.

Rhus glabra L. Scarlet Sumac, C.S.H.—N.M.G.

Rhus hirta L. Staghorn Sumac, C.S.H.—N.M.G.

Toxicodendron radicans (L.) Kuntze. Poison Ivy. Common.—N.M.G.

Toxicodendron vernix (L.) Kuntze. Poison Sumac. Between 1st and 2nd lakes, Bunker Swamp.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

THE AMERICAN MIDLAND NATURALIST.

ILICACEAE.

- Ilex laevigata* (Pursh) A. Gray. Gray Smooth Winterberry. Oyster Bay.—Jelliffe.
Ilex opaca Ait. American Holly. Vicinity C.S.H.—N.M.G.
Ilex verticillata (L) Gray. Virginia Winterberry. Low thicket, Jones Marsh, C.S.H.—N.M.G.

CELASTRACEAE.

- Celastrus scandens* L. Climbing Bittersweet. Huntington Hill roadside, C.S.H.—N.M.G.
Evonymus atropurpureus Jacq. Burning Bush. Cultivated. Hick's Nursery, Westburg, L. I.—N.M.G.
Evonymus radicans Sieb. Roadside, near De Forest Estate, C.S.H.—N.M.G.

STAPHYLEACEAE.

- Staphylea trifolia* L. American Bladder nut. Cultivated, C. S.H.—N.M.G.

ACERACEAE.

- Acer Negundo* L. Box Elder, C.S.H.—N.M.G.
Acer pennsylvanicum L. Striped Maple. Near Cold Spring Harbor Village.—N.M.G.
Acer platanoides L. Norway Maple. Roads and lawns, C.S. H.—N.M.G.
Acer Pseudo-Platanus L. Sycamore Maple. Matheson Estate, Lloyd Neck, L. I.—N.M.G.
Acer rubrum L. Red Maple. Woods, C.S.H.—N.M.G.
Acer saccharinum L. Silver Maple. Matheson Estate—N. M.G.
Acer saccharum Marsh. Sugar Maple. C.S.H. vicinity.—N. M.G.

AESCULACEAE.

- Aesculus Hippocastaneum* L. Horse-Chestnut. Jones Estate, C.S.H.—N.M.G.

RHAMNACEAE.

- Ceanothus americanus* L. New Jersey Tea. Hempstead Plains, Hicksville, L. I.—N.M.G.
Rhamnus cathartica L. Buckthorn. Vicinity C.S.H.—G.H.H.

VITACEAE.

- Parthenocissus quinquefolia* Planch. Virginia Creeper. Common. C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

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THE AMERICAN MIDLAND NATURALIST

- Vitis aestivalis* Mx. Summer Grape. Woods, C.S.H.—N.M.G.
Vitis bicolor (Le Conte). Blue Grape. Jones Woods, C.S.H.—N.M.G.
Vitis cordifolia Mchx. Frost Grape. Vicinity C.S.H.—G.H.H.
Vitis Labrusca L. Northern Fox-grape. Roadsides, C.S.H.—N.M.G.

TILIACEAE.

- Tilia americana* L. American Linden, Davenport Lawn, C.S.H.—N.M.G.
Tilia pubescens Ait. Southern Bass-wood. Common throughout island.—Jelliffe.

MALVACEAE.

- Abutilon Abutilon* Rusky. Velvet leaf. Vicinity C.S.H.—G.H.H.
Althaea officinalis L. Marsh-Mallow. Oyster Bay.—Jelliffe.
Callirhoe involucrata (T. and G.) Gray. Purple Poppy-Mallow. Hicks Nursery, Westbury, L. I.—N.M.G.
Hibiscus esculentus L. Laughlin garden, C.S.H.—G.H.H.
Hibiscus moscheutos L. Swamp Rose-Mallow. Fresh water marsh, C.S.H.—N.M.G.
Hibiscus oculiroseus Britton. Crimson-eye Rose-Mallow. Fresh water marsh, C.S.H.—N.M.G.
Hibiscus Syriacus. L. Rose-of-Sharon. Eugenics Record Office, C.S.H.—N.M.G.
Malva Alcea L. European Mallow. C.S.H. village.—G.H.H.
Malva moschata L. Musk Mallow, C.S.H.—Jelliffe.
Malva rotundifolia L. Dwarf Mallow. Roadsides, C.S.H.—N.M.G.

HYPERICACEAE.

- Ascyrum hypericoides* L. St. Andrew's Cross.—N.M.G.
Hypericum adpressum Bart. Creeping St. John's-wort. Lloyd's Point, L. I.—G.H.H.
Hypericum canadense L. Canadian St. John's-wort. Salt Marsh, C.S.H.—H.S.C.
Hypericum mutilum L. Dwarf St. John's-wort. Davenport Farm, C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

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THE AMERICAN MIDLAND NATURALIST.

- Hypericum perforatum* L. Common St. John's-wort. Fields, C.S.H.—N.M.G.
Hypericum punctatum (Lam) Spotted St. John's-wort. C.S.H.—N.M.G.
Sarothra gentianoides L. Orange-grass. C.S.H. Hempstead Plain, Hicksville, L. I.—N.M.G.
Triadenum virginicum (L.) Raf. Marsh St. John's-wort. Fresh water swamp, C.S.H.—J.A.H.

CISTACEAE.

- Crocanthemum canadense* (L.) Britton. Rock-rose. C.S.H.—N.M.G.
Crocanthemum majus (L.) Britton. Hoary Frostweed. Hempstead Plain, Hicksville, L. I.—N.M.G.
Hudsonia tomentosa Nutt. False Heather. Bayville, L. I.—N.M.G.
Lechea intermedia Leggett. Large-podded Pinweed. Syosset, L. I.—H.S.C.
Lechea maritima Leggett. Beach Pinweed. Oyster Bay.—Jelliffe.
Lechea minor L. Thyme-leaved Pinweed. Oyster Bay.—Jelliffe.
Lechea villosa Ell. Large Pinweed. Hempstead Plain, Pine Barren region, L. I.—N.M.G.

VIOLACEAE.

- Viola arvensis* Murr. European Field Pansy. Near Laboratory, C.S.H.—N.M.G.
Viola blanda Willd. Sweet White Violet. C.S.H.—J.A.H.
Viola fimbriatula Sm. Ovate-leaved Violet.—G.H.H.
Viola incognita (var. *Forbesii*) Brainerd. Large-leaved White Violet. C.S.H.—N.M.G.
Viola lanceolata L. Water Violet. Common throughout island.—Jelliffe.
Viola labradorica Schrank. Alpine Violet. Vicinity C.S.H. J.A.H.
Viola odorata L. Sweet Violet. Vicinity C.S.H.—J.A.H.
Viola palmata L. Early Blue Violet. C.S.H.—N.M.G.
Viola pallens (Banks) Brainerd. Northern White Violet. C.S.H.—N.M.G.

THE FLORA OF COLD SPRING HARBOR.

THE AMERICAN MIDLAND NATURALIST

Viola papilionacea domestica (Bisk) Coll. Hooded Blue Violet.
—J.A.H.

Viola pedata L. Bird's-foot Violet. Hempstead Plains, Hicksville, L. I.—N.M.G.

Viola primulifolia L. (Harper) Primrose-leaved Violet.
Common throughout island.—N.M.G.

Viola pubescens Ait. Downy Yellow Violet. Common throughout island.—N.M.G.

Viola sagittata L. Arrow-leaved Violet. West Hills, Huntington, L. I.—B. Watt.

Viola scabriuscula Schwein. Smooth Yellow Violet. Vicinity C.S.H.—J.A.H.

Viola sororia Willd. Woolly Blue Violet. Vicinity C.S.H.—G.H.H.

Viola tricolor L. Pansy. Common throughout island.—Jelliffe.

CACTACEAE.

Opuntia Opuntia (L.) Coult. Eastern Prickly Pear. C.S.H. vicinity.—N.M.G.

ELEAGNACEAE.

Eleagnus argentea Pursh. Silver-berry. Jones farm; Hodenpyl Estate, Locust Calley, L. I.—N.M.G.

LYTHRACEAE.

Decodon verticillatus (L.) Ell. Swamp Loosestrife. Pine Barrens; Swamps, L. I.—N.M.G.

Lythrum Salicaria L. Spiked Loosestrife. Matheson Estate, Lloyd Neck, L. I.—N.M.G.

MELASTOMACEAE.

Rhexia virginica. Meadow-Beauty. Kettle Hole Bog, Woodbury, L. I.—H.S.C.

ONAGRACEAE.

Chamaenerion angustifolium (L.) Scop. Fire-Weed. Pine Barrens, Hempstead Plain.—N.M.G.

Circaea lutetiana L. Enchanter's Nightshade. Woods, C.S.H.—N.M.G.

Epilobium coloratum, Muhl. Purple-leaved Willow-herb. Dying Pond vicinity, C.S.H.—N.M.G.

Isnardia palustris L. Marsh Purslane. Muddy ditches, swamps, C.S.H.—J.A.H.

THE FLORA OF COLD SPRING HARBOR.

- Kneiffia fruticosa* (L) Raimann. Common Sundrops. C.S. H. vicinity.—N.M.G.
- Kneiffia linearis* (Michx) Spach. Narrow-leaved Sundrops. C.S.H. vicinity.—N.M.G.
- Kneiffia pumila* (L) Spach. Small Sun-drops. Vicinity C. S.H.—J.A.H.
- Ludwigia alternifolia* L. Rattlebox. Swamps, C.S.H.—N. M.G.
- Oenothera biennis* L. Common Evening Primrose. Roadsides, C.S.H.—N.M.G.
- Oenothera muricata* L. Northern Evening Primrose. Sandy or gravelly soils, C.S.H.—N.M.G.
- Oenothera oakesiana* Robbins. Oakes' Evening Primrose. Roadsides, C.S.H.—G.H.H.

HALORAGIDACEAE.

- Myriophyllum humile* (Raf) Morang. Low Water Milfoil. C.S.H.—E.N.T.
- Myriophyllum pinnatum* (Walt) B.W.P. Pinnate Water Milfoil. Lakes, C.S.H.—N.M.G.
- Myriophyllum tenellum* Bigel. Slender Water Milfoil. 4th lake, C.S.H.—N.M.G.
- Proserpinaca palustris* L. Mermaid-weed. Oyster Bay; ponds. Babylon.—Jelliffe.

ARALIACEAE.

- Aralia hispida* Vent. Bristly Sarsaparilla. Jones Woods, C. S.H.—N.M.G.
- Aralia nudicaulis* L. Wild Sarsaparilla. Jones Woods, C.S.H. N.M.G.
- Aralia racemosa* L. American Spikenard. Oyster Bay.—Jelliffe.
- Aralia spinosa* L. Hercules' Club. C.S.H.—N.M.G.
- Panax trifolium* L. Dwarf Ginseng. Vicinity C.S.H.—G.H.H.

AMMIACEAE.

- Aegopodium Podagraria* (L.) var. *variegata* Bailey. Goutweed. Fish Hatchery, C.S.H.—G.H.H.
- Aethusa cynapium* L. Fool's Parsley. Marsh, C.S.H.—Jelliffe.
- Conium maculatum* L. Poison Hemlock. C.S.H. vicinity, D. S.J.

THE FLORA OF COLD SPRING HARBOR.

MEMORANDUM

- Daucus carota* L. Wild Carrot. C.S.H., fields.—N.M.G.
Deringia canadensis (L) Kuntze, Honewort. C.S.H.—N.M.G.
Heracleum lanatum Michx. Cow-Parsnip. Oyster Bay.—Jelliffe.
Hydrocotyle americana L. American Marsh-Pennywort. Wet places C.S.H.—N.M.G.
Lilaeopsis lineata Greene. Lilaeopsis. In mud of marshes, C.S.H.—J.A.H.
Pastinaca sativa L. Wild Parsnip. Common throughout island.—Jelliffe.
Ptilimnium capillaceum (Michx) Mock Bishop-Wood. Brackish water, C.S.H.—J.A.H.
Sanicula canadensis L. Short-styled Snakeroot. Vicinity C.S.H.—G.H.H.
Sanicula marylandica L. Black Snake-Root.—Jelliffe.
Sium cicutaefolium Gmel. Hemlock Water-Parsnip. Dying Pond vicinity, C.S.H.—N.M.G.
Thaspium trifoliatum aureum (Nutt) Britton. Purple Meadow-Parsnip. Syosset, L.I.—H.S.C.
Washingtonia Claytoni, Britton. Hairy Sweet-Cicely. Vicinity C.S.H.—J.A.H.
Washingtonia longistylis Britt. Smoother Sweet-Cicely. C.S.H. vicinity.—J.A.H.

CORNACEAE.

- Cornus alternifolia* L. Alternate-leaved Dogwood. De Forest Estate, C.S.H.—G.H.H.
Cornus Amomum Mill. Silky Cornel. Oyster Bay.—Jelliffe.
Cornus stolonifera. Michx. Red-osier Dogwood. De Forest Estate. C.S.H.—G.H.H.
Cynoxylon floridum (L) Raf. Flowering Dogwood. C.S.H. vicinity.—N.M.G.
Nyssa sylvatica Marsh. Sour Gum. Vicinity C.S.H.—N.M.G.

CLETHRACEAE.

- Clethra alnifolia* L. Sweet Pepper-bush. Vicinity of lakes, C.S.H.—N.M.G.

PYROLACEAE.

- Chimaphila maculata* (L) Pursh. Spotted Wintergreen. Moistwoods, C.S.H.—N.M.G.

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Chimaphila umbellata (L) Leather-leaf. Pine Barrens, St. James, L. I.—N.M.G.

Pyrola americana Sweet. Round-leaved American Winter-green. Moist Woods, C.S.H.—N.M.G.

Pyrola elliptica Nutt. Shin-leaf. Vicinity C.S.H.—N.M.G.

MONTROPACEAE.

Hypopitys americana (D.C.) Small. False Beech-Drops. Rich Woods, C.S.H.—N.M.G.

Monotropa uniflora L. Indian Pipe. Rich Woods, C.S.H.—N.M.G.

ERICACEAE.

Uva-Ursi Uva-Ursi (L) Britton. Red Bear berry. Bayville, L. I.; Gilgo Beach.—N.M.G.

Azalea nudiflora L. Pinkster-flower. C.S.H. vicinity.—N.M.G.

Azalea viscosa L. Swamp Pink. Fresh water swamp, C.S.H.—N.M.G.

Calluna vulgaris (L) Hull, Heather. Hodenpyl Estate, Locust Valley, L. I.—N.M.G.

Chamaedaphne calyculata L. Leather-leaf. Pine Barrens, St. James, L. I.—J.W.H.

Epigaea repens L. Trailing Arbutus. Vicinity C.S.H.—N.M.G.

Eubotrys racemosa (L) Gray. Swamp Eubotrys, Havemeyer Estate, Locust Valley, L. I.—N.M.G.

Gaultheria procumbens L. Checkerberry. De Forest Estate, C.S.H.—N.M.G.

Kalmia latifolia L. Mountain Laurel. C.S.H. Woods, slopes.—N.M.G.

Ledum groenlandicum Oeder. Labrador Tea. Havemeyer Estate, Oyster Bay, L. I.—N.M.G.

Neopieris mariana (L) Britton. Stagger Bush. Hempstead Plains, Hicksville.—N.M.G.

Oxydendrum arboreum (L) D.C. Sour-wood. Near R.R. depot, C.S.H.—N.M.G.

Rhododendron maximum (L) Torr. Great Laurel. Swamp, 1st lake, C.S.H.—N.M.G.

Xolisma ligustrina Britton. Privet Andromeda. Vicinity C. S.H.—J.A.H.

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VACCINAICEAE.

- Gaylussacia baccata* (Wang.) K. Koch. Black Huckleberry.
Bayville, N. Y.—N.M.G.
- Gaylussacia frondosa* (L) T. & G. Huckleberry. Lakes in
vicinity, C.S.H.—N.M.G.
- Oxycoccus macrocarpus* (Ait.) Pursh. Large Cranberry.
Marsh near L. Ronkonkema, L. I.—N.M.G.
- Vaccinium angustifolium* Ait. Dwarf Blueberry. Dry hills,
C.S.H.—N.M.G.
- Vaccinium corymbosum* L. Tall Blueberry. Moist Woods 2nd
lake, C.S.H.—N.M.G.
- Vaccinium vacillans* Kalm. Low Blueberry. Dry Soil, C.S.
H.—N.M.G.
- Vitis-Idaea Vitis-Idaea* (L.) Britton. Mountain Cranberry.
Rocky soil, Bayville, L. I.—N.M.G.

PRIMULACEAE.

- Anagallis arvensis* L. Red Pimpernel. Shore of pond at
monastery C.S.H.—N.M.G.
- Dodecatheon Meadia* L. American Cowslip. Glen Cove. Jel-
liffe.
- Lysimachia Nummularia* L. Moneywort. Damp Places, C.S.
H.—N.M.G.
- Lysimachia quadrifolia* L. Whorled Loosestrife. Woods, C.
S.H.—N.M.G.
- Lysimachia producta* (Gray) Fernald. Damp Thickets, C.S.
H.—N.M.G.
- Lysimachia terrestris* L. Bulb-bearing Loosestrife. Low
ground, C.S.H.—N.M.G.
- Naumburgia thyrsiflora* (L) Duby. Tufted Loosestrife.
Glen Cove.—Jelliffe.
- Samolus floribundus* H.B.K. Water Pimpernel. N. and E.
Shore, C.S.H.—N.M.G.
- Steironema lanceolatum* (Walt) Gray. Lance-leaved Loose-
strife. Woodbury, L. I.—N.M.G.
- Trientalis americana* Pursh. Starflower. C.S.H. vicinity.—
N.M.G.

PLUMBAGINACEAE.

- Limonium carolinianum*. Britton. Sea Lavendar. Salt Marsh-
es, C.S.H.—N.M.G.

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EBENACEAE.

Diospyros virginiana L. Persimmon. Jones Farm, vicinity of 1st lake, C. S. H.—N.M.G.

STYRACACEAE.

Halesia carolinum L. Silver-bell. Vicinity, C.S.H.—G.H.N.

OLEACEAE.

Chionanthus virginica L. Fringe-tree. Vicinity C.S.H.—J. A.H.

Fraxinus americana L. White Ash. Common, C.S.H.—N. M.G.

Fraxinus americana L. var. *aecidiosa* Shull. Huntington Hill Rd.—N.M.G.

Fraxinus nigra Marsh. Black Ash. Oyster Bay.—Jelliffe.

Ligustrum vulgare L. Privet. Cultivated C.S.H.—N.M.G.

Syringa vulgaris L. Lilac. Cultivated C.S.H.—N.M.G.

GENTIANACEAE.

Bartonia virginica (L.) Yellow Bartonia. Moist Soil, C.S.H.—N.M.G.

Dasystephana Andreysii (Griseb.) Small. Closed Gentian. C. S.H.—G.H.H.

Gentiana crinita Froel. Fringed Gentian.—Jelliffe.

Nymphoides lacunosum (Vent) Kuntze. Floating Heart. Pond near L. Ronkonkema, L. I.—N.M.G.

Sabbatia stellaris Pursh. Marsh Pink. Salt meadow, Gilgo Brach, L. I.—N.M.G.

APOCYNACEAE.

Apocynum androsaemifolium L. Spreading Dogbane. Hempstead Plains, Hicksville.—N.M.G.

Apocynum cannabinum L. Indian Hemp, C.S.H. vicinity.—N.M.G.

Apocynum medium Greene. Intermediate Dogbane. Pine Barrens, St. James, L. I.—N.M.G.

Vinca Minor L. Periwinkle. Cultivated C.S.H.—N.M.G.

ASCLEPIADACEAE.

Asclepias amplexicaulis J. E. Smith. Blunt-leaved Milkweed. Syosset.—H.S.C.

Asclepias exaltata (L) Muhl. Tall Milkweed. Vicinity C. S.H.—J.A.H.

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- Asclepias pulchra* (Ehrb.) Pers. Hairy Milkweed. Fresh water swamps.—C.S.H.
- Asclepias purpurascens* L. Purple Milkweed. Hempstead Plains, Hicksville. L. I.—N.M.G.
- Asclepias quadrifolia* Jacq. Four-leaved Milkweed. Oyster Bay—Jelliffe.
- Asclepias syriaca* L. Common Milkweed. Moist fields, C.S.H. N.M.G.
- Asclepias tuberosa* L. Butterfly-weed. Hempstead Plain, Hicksville, L. I.—N.M.G.
- Asclepias variegata* L. White Milkweed. Glen Cove.—Jelliffe.
- Asclepias verticillata* L. Whorled Milkweed. Hempstead Plain, Hicksville, L. I.—N.M.G.
- Periploca graeca* L. Silkvine. W. Side, C.S.H.—D.S.J.

CONVOLVULACEAE.

- Convolvulus arvensis* L. Small Bindweed. Vicinity C.S.H.—G.H.H.
- Convolvulus sepium* L. Great Bindweed. Vicinity C.S.H.—G.H.H.

CUSCUTACEAE.

- Cuscuta Gronovii* Willd. Gronovius' Dodder. Jones Marsh, C.S.H.—G.H.H.

POLEMONIACEAE.

- Phlox paniculata* L. Garden Phlox. Road to Eugenic Record Office. Vicinity C.S.H.—G.H.H.

BORAGINACEAE.

- Cynoglossum officinale* L. Hound's Tongue. Vicinity C.S.H.—G.H.H.
- Echium vulgare* L. Viper's Bugloss. Hodenpyl Estate, Locust Valley, L. I.—N.M.G.
- Myosotis scorpioides* (L.) Forget-me-not. Oyster Bay; escaped.—Jelliffe.

VERBENACEAE.

- Verbena hastata* L. Blue Vervain. Common throughout island.—Jelliffe.
- Verbena urticaefolia* L. White Vervain. Waste Ground, C.S.H. vicinity.—N.M.G.

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LABIATAE.

- Agastache nepetoides* Kuntze. Catnip Giant Hyssop. Vicinity C.S.H.—G.H.H.
- Collinsonia canadensis* L. Citronella. Jones Woods, C.S.H., near 1st Lake.—G.H.H.
- Cunila origanoides* (L.) Brit. Stone Mint. Vicinity C.S.H.—N.M.G.
- Galeopsis Tetrahit* L. Hemp-Nettle. Oyster Bay—Jelliffe.
- Glechoma hederacea* L. Ground Ivy. C.S.H.—N.M.G.
- Koellia flexuosa* (Walt) MacM. Narrow-leaved Mountain Mint. Hempstead Plains, Hicksville, L. I.—N.M.G.
- Koellia virginiana* (L.) MacH. Virginia Mountain mint—Jelliffe.
- Lamium amplexicaule* L. Henbit. Vicinity C.S.H.—J.A.H.
- Leonurus Cardiaca* L. C.S.H. Waste places—N.M.G.
- Lycopus americanus* Muhl. C.S.H., rich moist ground.—N.M.G.
- Lycopus membranaceus* Michx. Rich moist ground, C.S.H.—N.M.G.
- Lycopus sessilifolius* A. Gray. Gilgo beach, L. I.—N.M.G.
- Lycopus virginicus* L. Cut-leaved Water Hoarhound. Rich moist ground, C.S.H.—H.S.C.
- Marrubium vulgare* L. Common Hoarhound. Oyster Bay.—Jelliffe.
- Melissa officinalis* L. Bee-balm. C.S.H. vicinity.—J.A.H.
- Mentha canadensis* L. American Wild Mint. Vicinity Biological Laboratory, C.S.H.—G.H.H.
- Mentha citrata* Ehr. Bergamot Mint. C.S.H. Vicinity.—N.M.G.
- Mentha piperita* L. Peppermint. Jones Marsh, C.S.H.—G.H.H.
- Mentha spicata* L. Spearmint. Roadside near Sandspit, C.S.H.—G.H.H.
- Monarda didyma* L. Oswego Tea. Moist fields, C.S.H.—N.M.G.
- Monarda fistulosa* L. Wild Bergamot. C.S.H. vicinity.—G.H.H.
- Nepeta Cataria* L. Catnip. C.S.H. Common.—N.M.G.
- Perilla frutescens* (L.) Britton. Beef-steak Plant. C.S.H., Waste fields.—N.M.G.

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- Prunella vulgaris* L. Self-heal. Roadsides, C.S.H.—N.M.G.
Salvia lyrata L. Wild Sage. Matheson estate, Lloyd Neck, L. I.—N.M.G.
Scutellaria galericulata L. Hooded Willow-herb. Common throughout island.—Jelliffe.
Scutellaria integrifolia L. Larger Skullcap. Hempstead Plains, Hicksville, L. I.—N.M.G.
Scutellaria lateriflora L. Mad-dog Skullcap. C.S.H.—N.M.G.
Stachys hyssopifolia Michx. Hyssop Hedge Nettle. Pine Barrens, St. James, L. I.—N.M.G.
Teucrium canadense L. Wood Sage. Common throughout island.—Jelliffe.
Trichostema dichotomum L. Blue Curls. Vicinity Biological Lab. C.S.H.—G.H.H.

SOLANACEAE.

- Datura Stramonium* L. Jimson-weed. C.S.H.—N.M.G.
Hyoscyamus niger L. Black Henbane. Glen Cove, L. I.—Jelliffe.
Lycium halimifolium Mill. Matrimony Vine. Vicinity C.S.H. Village.—G.H.H.
Physalis pubescens L. Low Hairy Ground Cherry, C.S.H.—N.M.G.
Physalis virginiana Mill. Virginia Ground-cherry. C.S.H.—Jelliffe.
Physalis viscosa L. Yellow Henbane. Vicinity Biological Lab., C.S.H.—N.M.G.
Solanum Dulcamara L. Climbing Nightshade. C.S.H. moist banks.—N.M.G.
Solanum nigrum L. Deadly Nightshade. Vicinity Biological Laboratory.—G.H.H.
Solanum tuberosum L. Potato. Jones Marsh, C.S.H.—G.H.H.

SCROPHULARIACEAE.

- Agalinis maritima* Raf. Sea-side Agalinis. Salt marsh, C.S.H.—N.M.G.
Agalinis purpurea (L) Britton. Large Purple Agalinis. Jones Marsh.—C.E.
Antirrhinum majus L. Great Snap-dragon. Cultivated, escaped. C.S.H.—N.M.G.

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- Castilleja coccinea* (L.) Spreng. Indian Paint-brush. Oyster Bay.—Jelliffe.
- Chelone glabra* L. Turtle head. C.S.H. Swamps, and clay streams.—J.A.H.
- Cymbalaria Cymbalaria* (L.) Wettst. Kennilworth Ivy. Vicinity C.S.H.—N.M.G.
- Dasystoma flava* (L.) Wood. Downy False Foxglove. C.S.H. Hillside.—N.M.G.
- Dasystoma pedicularia* L. Fever-Weed. Pine Barrens, L. I.—N.M.G.
- Digitalis purpurea* L. Purple Foxglove. Cultivated and escaped.—G.H.H.
- Gratiola aurea* Muhl. Goldenpert. C.S.H., edge 1st lake.—C.E.
- Leptandra virginica* (L.) Nutt. Beaumont's-root. Common throughout island.—Jelliffe.
- Limosella aquatica* L. Mudwort. C.S.H. sea wall.—J.W.H.
- Linaria canadensis* (L.) Dumont. Blue Toad-Flax. Hempstead Plains, Hicksville, L. I.—N.M.G.
- Linaria Linaria* (L.) Karst. Butter-and-Eggs. Vicinity C.S.H.—N.M.G.
- Melampyrum lineare* Lam. Narrow-leaved Cow-Wheat. Beach at Bayville, L.I.—N.M.G.
- Mimulus ringens* L. Square-stemmed Monkey-flower, C.S.H.—O.E.J.
- Paulownia tomentosa* (Thunb.) Bail. Paulownia. Jones Farm, C.S.H.—O.E.J.
- Pedicularis canadensis* L. Wood Betony. Hempstead Plains, Hicksville, L. I.—N.M.G.
- Scrophularia marilandica* L. Maryland Figwort. Woods and thickets, C.S.H.—N.M.G.
- Verbascum Blattaria* L. Moth Mullen. C.S.H. Waste places, woodsides.—N.M.G.
- Verbascum Thapsus* L. Great Mullen. C.S.H. Sandspit.—N.M.G.
- Veronica agrestis* L. Garden Speedwell. Glen Cove.—Jelliffe.
- Veronica americana* Schwein. American Brooklime. Vicinity C.S.H.—G.H.H.
- Veronica arvensis* L. Corn Speedwell. Common throughout island.—Jelliffe.

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Veronica officinalis L. Common Speedwell. Vicinity C.S.H.—N.M.G.

Veronica peregrina L. Purslane. Speedwell. Common throughout island.—Jelliffe.

Veronica serpyllifolia L. Thyme-leaved Speedwell. Common throughout island.—Jelliffe.

LENTIBULARIACEAE.

Utricularia gibba L. Humped Bladderwort. C.S.H. vicinity, 2nd lake.—N.M.G.

Utricularia macrorhiza Le Conte. Greater Bladderwort. Swamp near 2nd lake, C.S.H.—N.M.G.

OROBANCHACEAE.

Leptamnium virginianum (L) Raf. Beech-drops. C.S.H. vicinity—D.S.J.

Thalesia uniflora Brit. Pale Broom-rape. C.S.H. vicinity.—J.A.H.

BIGNONIACEAE.

Bignonia radicans (L) Trumpet-flower. Vicinity C.S.H.—N.M.G.

Catalpa *Catalpa* Warder. Catalpa. Cultivated C.S.H.—N.M.G.

PHRYMACEAE.

Phryma Leptostachya L. Lopseed. C.S.H. roadsides.—G.H.H.

PLANTAGINACEAE.

Plantago aristata Michx. Large-bracted Plantain, C.S.H.—N.M.G.

Plantago lanceolata L. Ribgrass. Roadsides, C.S.H.—N.M.G.

Plantago major L. Common Plantain. Roadsides, C.S.H.—N.M.G.

Plantago maritima L. Seaside Plantain. Salt marshes, C.S.H., H.H.Y. and D.S.J.

Plantago Rugelii Dene. Regel's Plantain. Jones Marsh, C.S.H.—C.E.

Plantago virginica L. Dwarf Plantain. Jones Marsh, C.S.H.—C.E.

RUBIACEAE.

Cephalanthus occidentalis L. Button-bush. Kettle hole near Jericho, L. I.—J.W.H.

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- Diodia teres* Walt. Rough Buttonweed. Vicinity C.S.H.—G.H.H.
- Galium Aparine* L. Cleavers. Coppice, Jones Marsh.—G.H.H.
- Galium asprellum* Michx. Rough Bedstraw. Oyster Bay.—Jelliffe.
- Galium circaezans* Michx. Wild Liquorice.—G.H.H.
- Galium Claytoni* Michx. Clayton's Bedstraw. Salt Marsh, C.S.H.—H.S.C.
- Galium Mollugo* L. White Bedstraw. Hill road to Huntington. C.S.H.—N.M.G.
- Galium tinctorium* L. Wild Madder. Oyster Bay.—Jelliffe.
- Galium trifidum pusillum* L. Small Bedstraw. Pine Barrens, L.I.—N.M.G.
- Galium triflorum* Ait. Sweet-scented Bedstraw. Vicinity C.S.H.—N.M.G.
- Galium verum* L. Yellow Bedstraw. Huntington Hill Road.—G.H.H.
- Houstonia coerulea* L. Bluets.—Jelliffe.
- Houstonia longifolia* Gaertn. Long-leaved Houstonia. C.S.H. Hempstead Plains, Hicksville, N. Y.—N.M.G.
- Mitchella repens* L. Partridge Berry. De Forest Estate.—G.H.H.

CAPRIFOLIACEAE.

- Lonicera japonica* Thunb. Japanese Honeysuckle. C.S.H.—N.M.G.
- Lonicera sempervirens* L. Coral Honeysuckle. Woods, C.S.H.—G.H.H.
- Sambucus canadensis* L. American Elder. Roadsides, C.S.H.—N.M.G.
- Symphoricarpos racemosus* Michx. Snowberry. C.S.H., roadsides.—N.M.G.
- Triosteum aurantiacum* Bicknell. Scarlet-fruited Horse Gentian. Hempstead Plains, Hicksville, L. I.—N.M.G.
- Triosteum perfoliatum* L. Feverwort. Oyster Bay, Glen Cove, L. I.—Jelliffe.
- Viburnum acerifolium* L. Maple-leaved Arrow-wood. Moist Woods, C.S.H.—N.M.G.
- Viburnum cassinoides* L. White-rod. Swamps, C.S.H.—J.A.H.

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Viburnum dentatum L. Arrow-wood. Huntington Hill Road,
C.S.H.—N.M.G.

DIPSACACEAE.

Dipsacus sylvestris L. Wild Teasel. C.S.H.—Jelliffe.

CUCURBITACEAE.

Sicyos angulatus L. Star Cucumber. Jones Woods. C.S.H.—
G.H.H.

CAMPANULACEAE.

Campanula rapunculoides L. Creeping Bellflower. C.S.H.
village and vicinity.—N.M.G.

Specularia perfoliata (L) A. Dc. Venus Looking-glass, C.
S.H. vicinity.—N.M.G.

LOBELIACEAE.

Lobelia cardinalis L. Cardinal-flower, C.S.H. vicinity.—N.
M.G.

Lobelia inflata L. Indian Tobacco. Road to Sandspit, C.S.H.
—N.M.G.

Lobelia Nuttalli R. & S. Nuttall's Lobelia.—Jelliffe.

Lobelia spicata Lam. Pale Spiked Lobelia. Hempstead Plains,
Hicksville, L. I.—N.M.G.

Lobelia syphilitica L. Great. Lobelia, Oyster Bay, L. I. —
Jelliffe.

CICHORIACEAE.

Apargia nudicaulis (L.) Britton. Hairy Haykbit. C.S.H.
Jelliffe.

Cichorium Intybus L. Chicory. Vicinity C.S.H.—N.M.G.

Cynthia virginica (L.) D. Don. Cynthia. Glen Cove.—Jel-
liffe.

Hieracium aurantiacum L. Orange Hawkweed. Pine Bar-
rens, St. James, L. I. —N.M.G.

Hieracium canadense Michx. Canada Hawkweed, C.S.H.
vicinity.—J.A.H.

Hieracium Gronovii L. Hairy Hawkweed. Common through-
out island.—Jelliffe.

Hieracium marianum Willd. Maryland Hawkweed. Vicinity
C.S.H.—J.A.H.

Hieracium murorum L. Wall Hawkweed. Northport, L. I.
—Jelliffe.

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- Hieracium paniculatum* L. Panicked Hawkweed. Vicinity C. S.H.—J.A.H.
- Hieracium scabrum* Michx. Rough Hawkweed. Vicinity C. S.H.—J.A.H.
- Hieracium venosum* L. Rattlesnake-weed. Vicinity C.S.H.—J.A.H.
- Iva frutescens* L. Marsh Elder. C.S.H. vicinity, salt marshes.—Jelliffe.
- Lactuca canadensis* L. Wild Lettuce. Vicinity C.S.H.—Jelliffe.
- Lactuca saligna* L. Willow Lettuce. Woods C.S.H.—Jelliffe.
- Lactuca spicata* (Lam.) Hitchc. Tall Blue Lettuce. Jones Marsh, C.S.H.—Jelliffe.
- Lactuca virosa* L. Prickly Lettuce. Vicinity C.S.H.—Jelliffe.
- Lapsana communis* L. Succory Dock-cress. Road to Sandspit, C.S.H.—Jelliffe.
- Leontodon Taraxacum* L. Dandelion. Vicinity C.S.H.—Jelliffe.
- Nabalus albus* (L.) Hook. Rattlesnake-root. Common throughout island.—Jelliffe.
- Nabalus altissimus* (L.) Hook. Tall White Lettuce. Common L.I.—Jelliffe.
- Nabalus racemosus* (Michx.) D.C. Glaucous White Lettuce. Not infrequent on L. I.—Jelliffe.
- Nabalus trifoliolatus* Cass. Tall Rattlesnake-root. Road to Eugenic Record Office. C.S.H.
- Sonchus arvensis* L. Corn-Thistle. C.S.H.—Jelliffe.
- Sonchus asper* (L.) Hill. Spring Sow Thistle. Vicinity C. S.H.—Jelliffe.

AMBROSIACEAE.

- Ambrosia elatior* L. Wild Tansy. E. Shore, C.S.H.—Jelliffe.
- Ambrosia trifida* L. Great Ragweed.—Jelliffe.
- Xanthium americanum* Walt. American Cocklebur. Common throughout island.—Jelliffe.
- Xanthium commune* Britton. Cocklebur. Vicinity C.S.H.—Jelliffe.
- Xanthium pennsylvanicum* Wallr. Pennsylvania Clotbur.—Jelliffe.
- Xanthium spinosum* L. Spiny Clotbur. Common throughout island.—Jelliffe.

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COMPOSITAE.

- Achillea Millefolium* L. Yarrow. C.S.H.—N.M.G.
Anaphalis margaritacea (L) B. & H. Pearly Everlasting,
Pine Barrens, St. James, L. I.—N.M.G.
Antennaria neglecta Greene. Field Cat's-foot. Syosset.—H.
S.C.
Antennaria neodioica Greene. Smaller Cat's-foot. C.S.H.
vicinity.—N.M.G.
Antennaria plantaginifolia (L) Richards. Plantain-leaf.
Everlasting. Vicinity C.S.H.—J.A.H.
Anthemis arvensis L. Corn Camomile. C.S.H.—G.H.H.
Anthemis Cotula L. Dag's Camomile. C.S.H.—G.H.H.
Arctium Lappa L. Great Bur. Vicinity C.S.H.—N.M.G.
Arctium minus Bernh. Common Burdock. Jones marsh,
Vicinity C.S.H.—G.H.H.
Artemisia caudata Michx. Tall Wormwood, C.S.H.—Jelliffe.
Artemisia Stelleriana Bess. Beach Wormwood. Bayville, L.
I.—N.M.G.
Artemisia vulgaris L. Common Mugwort, C.S.H.—Jelliffe.
Aster acuminatus Michx. Whorled Aster.—Jelliffe.
Aster cordifolius L. Common Blue Wood Aster. C.S.H.—J.
A.H.
Aster divaricatus L. White Wood Aster, Vicinity C.S.H.—
J.A.H.
Aster dumosus L. Bushy Aster. Vicinity C.S.H.—J.A.H.
Aster ericoides L. White Heath Aster. Vicinity C.S.H.—J.
A.H.
Aster Herveyi Gray. Hervey's Aster. C.S.H.—N.M.G.
Aster laevis L. Smooth Aster. Oyster Bay.—Jelliffe.
Aster lateriflorus Britton. Starved Aster. Vicinity C.S.H.—
J.A.H.
Aster macrophyllus L. Large-leaved Aster. Oyster Bay. —
Jelliffe.
Aster multiflorus Ait. Dense-flowered Aster.—Jelliffe.
Aster novae-angliae L. New England Aster.—Jelliffe.
Aster novae-belgii L. New York Aster. Fern Belt. Marsh.
—H.S.C.
Aster paniculatus Lam. Tall White Aster. Vicinity C.S.H.
—J.A.H.

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- Aster paniculatus acutidens* Burgess. Vicinity C.S.H.—J. A.H.
- Aster patens* Ait. Late Purple Aster. Vicinity C.S.H.—J. A.H.
- Aster puniceus* L. Red-stalk Aster. Vicinity C.S.H.—J.A.H.
- Aster subulatus* Michx. Annual Salt Marsh Aster. Salt marsh, C.S.H.—N.M.G.
- Aster salicifolius* Lam. Willow Aster Vicinity C.S.H.—J.A.H.
- Aster tenuifolius* L. Perennial Salt-marsh Aster. Marsh, C. S.H.—Jelliffe.
- Aster Tradescanti* L. Michaelmas Daisy. Common throughout island.—Jelliffe.
- Aster undulatus* L. Wavy-leaf Aster.—J.A.H.
- Aster vimineus* Lam. Small Aster. Vicinity C.S.H.—J.A.H.
- Baccharis halimifolia* L. Groundsel-tree. Gilgo Beach, L.I. —N.M.G.
- Bidens bipinnata* L. Spanish Needles. Vicinity C.S.H. — G.H.H.
- Bidens connata* Muhl. Purple stemmed Swamp Beggar Ticks. Common throughout island.—Jelliffe.
- Bidens cernua* L. Smaller Bur-Marigold. C.S.H.—G.H.H.
- Bidens frondosa* L. Beggar-ticks. Roadsides, C.S.H.—G.H.H.
- Centaurea Cyanus* L. Corn Flower. Havemeyer Estate near Oyster Bay, L. I.—G.H.H.
- Centaurea nigra* L. Black Knapweed. Near R.R. Depot, C.S. H., L. I.—G.H.H.
- Chrysanthemum Parthenium* L. Feverfew. Matheson Estate, C.S.H.—G.H.H.
- Chrysanthemum Leucanthemum* L. Ox-eye Daisy. Roadsides, fields, C.S.H.—G.H.H.
- Chrysopsis mariana* L. Maryland Golden Aster. Pine Barrens near L. Ronkonkema, L. I.—N.M.G.
- Chrysopsis falcata* (Pursh) Ell. Sickle-leaved Golden Aster. Sandy Soil, Bayville, L. I.—N.M.G.
- Cirsium arvense* L. Scop. Canada Thistle. Common throughout island.—Jelliffe.
- Cirsium discolor* (Muhl) Spreng. Field Thistle. Hempstead Plains, Hicksville, L. I.—N.M.G.

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- Cirsium horridulum* Michx. Yellow Thistle. Oyster Bay.—Jelliffe.
- Cirsium lanceolatum* L. Common Bur. Vicinity, C.S.H.—N.M.G.
- Cirsium odoratum* (Muh) Porter. Fragrant thistle. C.S.H.—N.M.G.
- Coreopsis tinctoria* Nutt. Golden Coreopsis. Cultivated, C.S.H.—J.H.H.
- Dahlia pinnata* Cav. Escaped from cultivation. C.S.H.—C.E.
- Doellingeria umbellata* (Mill.) Nees. Tall Flat-top Aster. Oyster Bay, L. I.—Jelliffe.
- Erechtites hieracifolius* (L) Raf. Fire-weed. Salt Marsh, C.S.H.—H.S.C.
- Erigeron annuus* (L) Pers. Sweet Scabious. C.S.H., fields.—N.M.G.
- Erigeron philadelphicus* L. Philadelphia Fleabane. Oyster Bay, L. I.—Jelliffe.
- Erigeron pulchellus* Michx. Robin's Plantain, C.S.H.—N.M.G.
- Erigeron ramosus* Walt. Daisy Fleabane. Vicinity C.S.H.—N.M.G.
- Eupatorium hyssopifolium* L. Hyssop--leaved Thoroughwort. Vicinity C.S.H.—N.M.G.
- Eupatorium perfoliatum* L. Boneset. Salt Marsh, C.S.H.—N.M.G.
- Eupatorium purpureum* L. Joe-Pye Weed. Roadsides, C.S.H.—N.M.G.
- Eupatorium sessilifolium* L. Upland Boneset. Glen Cove; Oyster Bay.—Jelliffe.
- Eupatorium urticaefolium* Reichard. White Snake-root. Oyster Bay.—Jelliffe.
- Euthamia graminifolia* (L) Nutt. Bushy Golden rod. Upper Marsh near Fish Hatchery.—J.A.H.
- Euthamia tenuifolia* (L.) Greene. Slender Fragrant Golden rod. Syosset,—H.S.C.
- Galinsoga parviflora* (Cav) Galinsoga. Fields, waste places, C.S.H.—N.M.G.
- Gnaphalium Helleri* Britton. Heller's Everlasting. C.S.H.—Jelliffe.

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- Gnaphalium obtusifolium* L. Sweet Everlasting. Common throughout island.—Jelliffe.
- Gnaphalium uliginosum* L. Mouse-ear. Common throughout island.—Jelliffe.
- Helenium autumnale* L. False Sunflower. Common throughout island.—Jelliffe.
- Helianthus angustifolius* L. Narrow-leaved Sunflower. Oyster Bay.—Jelliffe.
- Helianthus annuus* L. Upper Marsh, C.S.H.—Jelliffe.
- Helianthus divaricatus* L. Rough Sunflower. Common throughout island.—Jelliffe.
- Helianthus giganteus* L. Tall Sunflower. Lloyds point; C. S.H.—N.M.G.
- Helianthus strumosus* L. Pale-leaved Wood Sunflower. Hempstead Plains, Hicksville, L. I.—N.M.G.
- Heliopsis scabra* Dunal. Rough Ox-eye. Vicinity C.S.H.—G.H.H.
- Inula Helenium* L. Elecampane. Oyster Bay, L. I.—Jelliffe.
- Ionactis linariifolius* (L) Greene. Stiff Aster. Syosset.—H.S.C.
- Lacinaria scariosa* (L) Hill. Large Button-Snakeroot. Common L. I.—Jelliffe.
- Leptilon canadense* Britton. Canada Fleabane. Vicinity Biological Lab. C.S.H.—N.M.G.
- Matricaria matricarioides* (Less.) Porter. Rayless Camomile. Hempstead Plain, Hicksville, L. I.—N.M.G.
- Mikania scandens* (L) Willd. Climbing Hempweed. Frequent, L. I.—Jelliffe.
- Pluchea camphorata* L. Spicy Fleabane. Salt marsh, C.S.H.—N.M.G.
- Rudbeckia hirta* L. Black-eyed Susan. Hempstead Plain, Hicksville, L. I.—N.M.G.
- Senecio aureus* L. Golden Ragwort. Common throughout island.—Jelliffe.
- Senecio vulgaris* L. Common Groundsel, C.S.H.—Jelliffe.
- Sericocarpus asteroides* (L) B.S.P. Toothed White-topped Aster. Near 1st lake, C.S.H.—N.M.G.
- Sericocarpus linifolius* L. Narrow-leaved White-topped Aster. Hempstead Plains, Hicksville, L. I.—N.M.G.

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- Solidago bicolor* L. White Golden rod. Vicinity C.S.H.—J. A.H.
- Solidago caesia* L. Blue-stemmed Goldenrod. Vicinity C.S.H.—J.A.H.
- Solidago canadensis* L. Canada Goldenrod. Vicinity C.S.H.—N.M.G.
- Solidago flexicaulis* L. Broad-leaved Goldenrod. Oyster Bay, L. I.—Jelliffe.
- Solidago juncea* Ait. Early Goldenrod. Vicinity C.S.H. — J.A.H.
- Solidago nemoralis* Ait. Dwarf Goldenrod. Vicinity C.S.H.—N.M.G.
- Solidago odora* Ait. Sweet Goldenrod. Pine Barrens near St. James, L. I.—N.M.G.
- Solidago rugosa* Mill. Pyramid Golden Rod. Vicinity C.S.H.; Syosset, L. I.—H.S.C.
- Solidago sempervirens* L. Seaside Goldenrod. Salt Marsh, C.S.H.—Jelliffe.
- Solidago serotina* Ait. Late Goldenrod. Oyster Bay.—Jelliffe.
- Tanacetum vulgare* L. Tansy. C.S.H.—N.M.G.
- Vernonia noveboracensis* (L) Willd. New York Ironweed. Jones Marsh; Roadsides, C.S.H.—J.H.H.

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THE FOSSIL FLORA OF THE VICINITY OF
COLD SPRING HARBOR.

VI.

VI.—BACILLARIAPHYTA*

ACHNANTHOIDEAE

Campyloneis Grevillei (W. Sm) Grun. Lloyd Neck, L. I.—
H. Ries.

Cocconeis pediculus Ehr. Lloyd Neck, L.I.—H. Ries.

Cocconeis placentula Ehr. Lloyd Neck, L. I.—H. Ries.

BIDDULPHIODEAE.

Triceratium trifoliatum. Lloyd Neck, L. I.—H. Ries.

DISCOIDEAE.

Melosira granulata (Ehrb.) Kuetz. Lloyd Neck, L. I.—H.
Ries.

Stephanodiscus niagarae Ehr. Lloyd Neck, L. I.—H. Ries.

FRAGILLAROIDEAE.

Diatoma hiemale K. B. Lloyd Neck, L. I.—H. Ries.

Eunotia monodon Ehr. Lloyd Neck, L. I.—H. Ries.

Fragillaria construans Grun.

Synedra affinis Kuetz. Lloyd Neck, L. I.—H. Ries.

NAVICULOIDEAE.

Cymbella cuspidata Kuetz. Lloyd Neck, L. I.—H. Ries.

Cymbella delicatula Kuetz. Lloyd Neck, L. I.—H. Ries.

Encyonema ventricosum Kuetz. Lloyd Neck, L. I.—H. Ries.

Epithema turgida (Ehr.) Kuetz. Lloyd Neck, L. I.—H. Ries.

Gomphonema capitatum Ehrb. Lloyd Neck, L. I.—H. Ries.

Navicula cocconeiformis Greg. Lloyd Neck, L. I.—H. Ries.

Navicula lata Breb. Lloyd Neck, L. I.—H. Ries.

Navicula major Kutz. Lloyd Neck, L. I.—H. Ries.

Navicula varians Grey. Lloyd Neck, L. I.—H. Ries.

Navicula viridis Kuetz. Lloyd Neck, L. I.—H. Ries.

Stauroneis phaeocenteron Ehrb. Lloyd Neck, L. I.—H. Ries.

* Compiled from "Microorganisms in the Clays of N. Y." H. Ries,
Trans. N. Y. Acad. Science Vol. 13, 1894, p. 165-69.

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XII.—EMOBRYOPHYTA ASIPHONOGAMA

II.—PTERIDOPHYTA*

MARSILIACEAE.

Marsilea Andersoni Hollick. Manhasset—A. E. Anderson.

POLYPODIACEAE.

Onoclea inquirenda (Hollick) n. comb. Glen Cove, Little Neck, Northport Harbor, L. I.—A. Hollick.

XIII.—EMBRYOPHYTA SIPHONOGAMA

I.—GYMNOSPERMAE.

ARAUCARINAE.

Androvettia statenensis Hollick and Jeffrey, Androvette pit, Kreischerville, Staten Island, E. C. Jeffrey and Hollick.

Anomaspis hispida Hollick and Jeffrey. Androvette pit, Kreischerville, Staten Island—E. Jeffrey and Hollick.

Anomaspis tuberculata Hollick and Jeffrey. Androvette pit, Kreischerville, Staten Island,—E. Jeffrey and A. Hollick.

Araucariopitys americana Jeffrey. Androvette pit, Kreischerville, Staten Island.—E. C. Jeffrey and A. Hollick.

Araucarioxylon noveboracense Hollick and Jeffrey. Drummond pit, Kreischerville, Staten Island.—E. C. Jeffrey and A. Hollick.

Brachyoxylon notabile Hollick and Jeffrey. Androvette pit, Kreischerville, Staten Island. A. Hollick and E. C. Jeffrey.

Dactylolepis crytomeroides Hollick and Jeffrey. Androvette pit, Kreischerville, Staten Island. E. C. Jeffrey and A. Hollick.

Eugeinitzia proxima Hollick and Jeffrey. Androvette pit, Kreischerville, Staten Island. E. C. Jeffrey and A. Hollick.

* This list is compiled from the following publications "The Cretaceous Flora of Southern New York and New England." A. Hollick. Mon. 50: U. S. G. S. 1906; Additions to the Paleobotany of the Cretaceous formation on Long Island No. III. A. Hollick. Bull. N. Y. Bot. Garden. 8:154-170; Studies of Cretaceous Coniferous Remains from Kreischerville, N. Y. Mem. N. Y. Bot. Garden 3:1-76. Species cited in these publications as occurring on Martha's Vineyard are omitted.

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Geinitzia sp. Androvette pit. Kreischerville, Staten Island.—
E. C. Jeffrey and A. Hollick.

Geinitzia Reichenbachii (Geinitz) Hollick and Jeffrey. Androvette pit, Kreischerville, Staten Island—A. Hollick.

Prodammara speciosa Hollick and Jeffrey. Androvette pit, Staten Island.—E.C. Jeffrey and A. Hollick.

Pseudogeinitzia sequoiiformis Hollick and Jeffrey. Androvette pit, Staten Island.—E.C. Jeffrey and A. Hollick.

Raritania gracilis (Newberry) Hollick and Jeffrey. Androvette pit. Staten Island.—E. C. Jeffrey and A. Hollick.

Strobilites Davisii Hollick and Jeffrey. Drummond pit, Kreischerville, Staten Island.—W. T. Davis.

Strobilites sp. Androvette pit. Kreischerville, Staten Island.—A. Hollick.

Thuites sp. Androvette pit, Kreischerville, Staten Island.—E.C. Jeffrey, A. Hollick.

CONIFEROUS REMAINS OF UNDETERMINED RELATIONSHIP.

Cupressinoxylon sp. Drummond pit, Kreischerville, Staten Island.—E.C. Jeffrey, A. Hollick.

Czekanowskia capillaris Newberry. Androvette pit, Kreischerville, Staten Island.—E. C. Jeffrey, A. Hollick.

Strobilites microsporophorus Hollick and Jeffrey. Androvette pit, Kreischerville, Staten Island.—E. C. Jeffrey and A. Hollick.

CYCADACEAE.

Podozamites lanceolatus (Lindley and Hutton) Schimper. Glen Cove, L. I. Kings Gravel Pit, Roslyn, N. Y.—A. Hollick.

Podozamites sp. Glen Cove, L. I.—A. Hollick.

Protophyllocadus subintegrifolius (Lesq.) Berry. Black Rock Point, Block Island; Tottenville, Staten Island; Princess Bay, Staten Island.—A. Hollick.

Williamsonia problematica (Newberry) Ward. Glen Cove, N. Y.—A. Hollick, E. Berry, A. B. Bibbins.

PINACEAE.

Brachyphyllum macrocarpon Newberry. Little Neck, Northpoint Harbor, Northport Harbor, L. I. A. Hollick; Drummond pit, Kreischerville, Staten Island, J. H. Dunnigan; Androvette pit, Kreischerville, S. C. Jeffrey, A. Hollick.

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- Cyparissidium gracile* (Heer.) Heer. Tottenville, Staten Island—A. Hollick.
- Dammara borealis* Heer. Glen Cove, L. I., Tottenville, Staten Island—A. Hollick.
- Dammara minor* Hollick. Balls Point, Black Island—A. Hollick.
- Dammara Northportensis* Hollick. Little Neck, Northport Harbor, L. I.—A. Hollick.
- Frenelopsis Hoheneggeri* (Ettinghausen) Schenck(?) Center Island, Oyster Bay.—A. Hollick.
- Juniperus hypnoides* Heer. Kreischerville, Staten Island.—A. Hollick.
- Moriconia cyclatoxon* Debey and Ettinghausen. Black Rock Point, Block Island.—A. Hollick.
- Pinus tetraphylla* Jeffrey. Androvette pit, Kreischerville, Staten Island.—E. C. Jeffrey and A. Hollick.
- Pinus triphylla* Hollick and Jeffrey. Kreischerville, Staten Island, Old excavation south of Killmeyer's Hotel, and Androvette pit.—E.C.Jeffrey and A. Hollick.
- Pinus quinquefolia* Jeffrey and Hollick. Androvette pit, Staten Island. E. C. Jeffrey and A. Hollick.
- Pitoxylon statenense* Jeffrey and Chrysler. Drummond pit, Kreischerville, Staten Island.—E.C. Jeffrey and A. Hollick.
- Prepinus statenensis* Jeffrey. Androvette pit, Staten Island.—E.C. Jeffrey and A. Hollick.
- Sequoia heterophylla* Velenovsky. Kreischerville, Staten Island.—A. Hollick.
- Sequoia reichenbachii* (Geinitz) Heer. Kreischerville, Staten Island.—A. Hollick.
- Sequoia* sp. Glen Cove, L. I.—A. Hollick.
- Widdringtonites Reichii* (Ettinghausen) Heer. Androvette pit, Kreischerville, Staten Island.—A. Hollick.
- Widdringtonites subtilis* Heer. Black Rock Point, Block Island.—A. Hollick.

II.—ANGIOSPERMAE.

Typha sp. Lloyd Neck, L. I.—David White.

POACEAE (*Graminaceae*)

Poacites sp. Glen Cove, L. I.—A. Hollick.

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CYPERACEAE.

Cyperacites sp. Glen Cove, L. I.—A. Hollick.

LILIACEAE.

Majanthemophyllum pusillum Heer. Kreischerville, Staten Island.—A. Hollick.

SALICACEAE.

Populus (?) *apiculata* Newberry. Glen Cove, L. I.—David White.

Populus harkeriana Lesq. Tottenville, Staten Island.—A Hollick.

Aments of *Populus* sp. Glen Cove, L. I.—A. Hollick.

Salix cuneata Newberry. Kreischerville, Glen Cove, L. I.—David White.

Salix meekii Newberry. Arrochar, Staten Island.—A. Hollick.

Salix membranacea Newberry. Kreischerville, Staten Island.—A. Hollick.

Salix cuneata Newberry. Kreischerville, Glen Cove, L. I.—D. White.

Salix proteaefolia flexuosa (Newberry) Lesq. Sea Cliff, Long Island.—G. van Ingen.

Salix proteaefolia lanceolata Lesq. Black Rock Point, Block Island; Arrochar, Staten Island.—A. Hollick.

Salix purpureoides Hollick, Sea Cliff, L. I.—G. van Ingen.

Salix sp. Kreischerville, Staten Island.—A. Hollick.

MYRICACEAE.

Myrica Davisii, Hollick. Kreischerville. Staten Island.—W. T. Davis.

Myrica Hollicki Ward. Tottenville, Staten Island.—A. Hollick.

Myrica Zenkeri (Ettinghausen) Velenovsky. Glen Cove, L. I.—David White.

JUGLANDACEAE.

Juglans arctica Heer. Tottenville and Staten Island, Black Rock Point, Block Island; King's Gravel Pit, Roslyn; Glen Cove, L. I.—A. Hollick.

Juglans crassipes Heer. King's Gravel Pit, Roslyn, L. I.—A. Hollick.

Juglans elongata Hollick. Sea Cliff, L. I.—G. Van Ingen.

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FAGACEAE.

- Quercus morrisoniana* Lesq. Center Island, L. I.—A. Hollick.
Quercus (?) *novae-caesareae* Hollick. Tottenville, Staten Island—A. Hollick.

MORACEAE.

- Ficus atavina* Heer. Glen Cove, L. I.—A. Hollick.
Ficus fracta Velenovsky. Oak Neck, L. I.—A. Hollick.
Ficus Krausiana Heer. Southeast Point, Block Island.—A. Hollick.
Ficus Krausiana (Heer) var. *subsimilis* Hollick. Kings Gravel Pit, L. I.—A. Hollick.
Ficus myricoides Hollick. Glen Cove, L. I.—David White.
Ficus sapindifolia Hollick. Mott Point, Manhasset Neck, L. I.—A. E. Anderson.
Ficus willisiana Hollick. Sea Cliff, L. I., G. van Ingen. Glen Cove,—A. Hollick.
Ficus Woolsoni Newberry. Kreischerville, Tottenville, Staten Island, Glen Cove, L. I.—A. Hollick, E. W. Berry, A. Bibbins.

PROTEACEAE.

- Banksites saportanus* Velenovsky. Glen Cove, L. I.—A. Hollick.
Embothriopsis presagita Hollick. Glen Cove, L. I.—A. Hollick, E. W. Berry, A. Bibbins.
Proteoides daphnogenoides Heer. Sea Cliff, L. I.—G. van Ingen.

NYMPHACEAE.

- Nelumbo Kempii* (Hollick) Hollick. King's Gravel Pit, Roslyn; Glen Cove, L. I., A. Hollick; Manhasset Neck, L. I.—A. E. Anderson.

MENISPERMACEAE.

- Coccolus minutus* Hollick. Little Neck, Northport Harbor, L.I.—H. Ries.
Menispermities Brysoniana Hollick. Glen Cove, L. I.—A. Hollick.
Menispermities sp. Tottenville, Staten Island, Hollick.

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MAGNOLIACEAE.

- Magnolia alternans* Heer. Elm Point, Great Neck, L. I. — Pollard.
- Magnolia auriculata* Newberry. Glen Cove, L. I.—A. Hollick.
- Magnolia Capellinii* Heer. Glen Cove, Center Island, L. I.—A. Hollick.
- Magnolia glaucoides* Newberry (?) Sea Cliff, L. I.—G. van Ingen.
- Magnolia Isbergiana* Heer. Glen Cove, L. I.—A. Hollick.
- Magnolia longifolia* Newberry. Tottenville, Staten Island.—A. Hollick.
- Magnolia longipes* Newb. King's Gravel Pit, Roslyn, Glen Cove, L. I.—A. Hollick, Dosoris Island, L. I.—B. Willis.
- Magnolia speciosa* Heer. Glen Cove, L. I.—A. Hollick.
- Magnolia tenuifolia* Lesq. Sea Cliff. G. van Ingen. Glen Cove—David White.
- Magnolia Van Ingeni* Hollick. King's Gravel Pit, Roslyn; Sea Cliff, L. I.—G. van Ingen.
- Magnolia woodbridgensis* Hollick. King's Gravel Pit, Roslyn; Balls Point, Block Island.—A. Hollick.
- Liriodendron attenuatum* Hollick Glen Cove, L.I.—A. Hollick.
- Liriodendron oblongifolium* Newberry, Glen Cove.—A. Hollick.
- Liriodendron primaevum* Newberry. Tottenville, Staten Island.—A. Hollick.
- Liriodendropsis angustifolia* Newberry. Glen Cove, L. I.—D. White.
- Liriodendropsis constricta* (Ward var.) Glen Cove, L. I.—A. Hollick.
- Liriodendropsis retusa* (Heer) Glen Cove, L. I.—A. Hollick.
- Liriodendropsis simplex* (Newberry) Newberry. Glen Cove, L. I.—David White and A. Hollick.
- Liriodendropsis spectabilis* Hollick. Glen Cove.—D. White and A. Hollick.

ANONACEAE.

- Guatteria cretaceae* Hollick. Glen Cove, L. I.—D. White.

LAURACEAE.

- Cinnamomum crassipetiolatum* Hollick. Glen Cove. L. I. — D. White.

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- Cinnamomum intermedium* Newberry. Manhasset Neck, Glen Cove, Sea Cliff, L. I.—A. Hollick.
- Cinnamomum membranaceum* (Lesq) Hollick. Glen Cove, L. I.—A. Hollick.
- Laurophyllum elegans* Hollick n. s. Glen Cove, L.I.—A Hollick.
- Laurophyllum lanceolatum* Newberry. Glen Cove, L. I.—A. Hollick, E. Berry, A. Bibbins.
- Laurophyllum nervillosum* Hollick. Tottenville, Staten Island.—A. Hollick.
- Laurophyllum ocoteaoides* Hollick. Glen Cove, L.I.—A. Hollick.
- Laurus augusta* Heer. Little Neck, Northport Harbor, L. I.—H. Ries.
- Laurus antedecens* Lesq. Glen Cove, L. I.—D. White.
- Laurus Hollae* Heer. Kreischerville, Staten Island.—A. Hollick.
- Laurus nebrascensis* (Lesq.) Lesq. Kreischerville, Tottenville, Staten Island.—A. Hollick.
- Laurus Newberryana* Hollick. Glen Cove, L. I.—A. Hollick.
- Laurus plutonia* Heer. King's Gravel Pit, Roslyn, Black Rock Point, Block Island, A. Hollick; Glen Cove, L.I., D. White; Sea Cliff, L.I., G. van Ingen.
- Ocotea nassauensis* Hollick. Glen Cove.—D. White.
- Persea Valida* Hollick. Glen Cove,—D. White.
- Platanus aquehongensis* Hollick. Richmond Valley, Staten Island.—Mesner.
- Platanus* (?) *Newberryana* Heer. Elm Point, Great Neck, L. I.—Pollard.
- Platanus* sp. Princess Bay, Staten Island.—A. Hollick.
- Sassafras acutilobum* Lesq. King's Gravel Pit, Roslyn, Glen Cove, L. I.—A. Hollick.
- Sassafras hastatum* Newberry. Glen Cove, L. I.—A. Hollick.
- Sassafras progenitor* Newberry. Oak Neck, L. I.—A. Hollick.

CAESALPINACEAE.

- Cassia insularis* Hollick. Glen Cove, L. I.—A. Hollick, E. Berry, A. Bibbins.
- Liriodendropsis constricta* (Ward) Hollick. Glen Cove, L. I. A. Hollick.
- Liriodendropsis simplex* (Newberry) Newberry. King's Gravel Pit. Roslyn, L. I.

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Hymenaea dakotana Lesq. Sea Cliff, G. van Ingen. Lloyd Neck — A. Hollick.

PAPILIONACEAE.

Colutea primordialis Heer. Eaton Neck, L. I.—A. Hollick.

Dalbergia hyperborea Heer. Tottenville, Staten Island—A. Hollick.

Phaseolites elegans Hollick. Brooklyn, L. I.—Hollick.

Phaseolites manhassettensis Hollick. Manhasset Neck, L. I.—A. E. Anderson.

OTHER LEGUMINOSAE.

Leguminosites convolutus Lesq. Glen Cove.—A. Hollick.

Leguminosites constrictus Lesq. Oak Neck, L. I.—A. Hollick.

Leguminosites coronilloides Heer. Kreischerville, Staten Island.—A. Hollick.

ANACARDIACEAE.

Pistacia aquebongensis Hollick. Tottenville, Staten Island.—A. Hollick.

Rhus cretacea Heer I. Glen Cove, L. I.—D. White.

CELASTRACEAE.

Celastrorhynchium crassipes Lesquereux (?) King's Gravel Pit, Roslyn, New York.—A. Hollick.

Celastrus arctica Heer. Little Neck. (Northport Harbor) L. I.—A. Hollick.

Elaeodendron sp. Glen Cove, L. I.—A. Hollick.

ACERACEAE.

Acer minutum Hollick. Tottenville, Staten Island.—A. Hollick.

SAPINDACEAE.

Sapindus apiculatus Velenovsky, Glen Cove, L. I.—D. White.

Sapindus imperfectus Hollick. Manhasset Neck, L. I.—A. E. Anderson.

Sapindus morrisoni Lesq. Glen Cove, L. I.—A. Hollick.

RHAMNACEAE.

Ceanothus constrictus Hollick. Glen Cove.—D. White.

Paliurus affinis Heer. Tottenville, Kreischerville, Staten Island.—A. Hollick.

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Paliurus integrifolius Hollick. Oak Neck, Lloyd Neck, Glen Cove.—A. Hollick; Little Neck, Northport Harbor,— H. Ries.

Rhamnus acuta Heer. Lolyd Neck, L. I.—A. Hollick.

Zizyphus elegans Hollick, Glen Cove, L. I.—A. Hollick.

Zizyphus Lewisiana Hollick. Oak Neck, L. I.—A. Hollick.

Zizyphus oblongus Hollick. Glen Cove.—A. Hollick.

VITACEAE.

Cissites formosus Heer. Dosoris Island, Long Island. — B. Willis.

STERCULIACEAE.

Pterospermites modestus Lesq. Tottenville, Staten Island.— A. Hollick.

Sterculia sp. Tottenville, Staten Island.—A. Hollick.

MYRTACEAE.

Eucalyptus angustifolia Newberry. Little Neck, Northport Harbor, L. I.—A. Hollick.

Eucalyptus Geinitzii (Heer.) Heer. King's Gravel Pit, Roslyn; Glen Cove, L. I.—A. Hollick.

Eucalyptus Geinitzii propinqua Hollick. King's Gravel Pit, Roslyn, L. I.—A. Hollick.

Eucalyptus latifolia Hollick. Glen Cove, L. I.—A. Hollick.

Eucalyptus (?) *nervosa* Newberry. Sea Cliff, L. I.—G. van Ingen.

Myrtophyllum sapindoides Hollick. Glen Cove, L. I.—A. Hollick.

Myrtophyllum Warderi Lesq. Glen Cove, L. I.—A. Hollick.

ARALIACEAE.

Aralia nassauensis Hollick. Brooklyn, L. I.—J. C. Brevoort.

Aralia palmata Newberry. Tottenville, Staten Island, A. Hollick.

Aralia patens Newberry? Glen Cove, L. I.—A. Hollick.

Aralia Ravniana Heer. Tottenville, Staten Island.—A. Hollick.

Chondrophyllum orbiculatum Heer. Kreischerville, Staten Island.—A. Hollick.

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OLEACEAE.

- Ligustrum subtile* Hollick. King's Gravel Pit, Roslyn, L. I.
—A. Hollick.

ERICACEAE.

- Andromeda latifolia* Newberry. Oak Neck, L. I.—A. Hollick.
Andromeda Parlatorii Heer. Glen Cove, L. I.—A. Hollick.
Andromeda tenuinervis Lesq. Tottenville, Staten Island.—A.
Hollick.
Kalmia brittoniana Hollick. Kreischerville, Staten Island.—
A. Hollick.

MYRSINACEAE.

- Myrsine borealis* Heer. Glen Cove, L. I.—A. Hollick.
Myrsine elongata Newberry. Lloyd Neck, L. I.—A. Hollick.
Myrsinites (?) *Gaudini* Lesq. Tottenville, Staten Island.—A.
Hollick.

EBENACEAE.

- Diospyros apiculata* Lesq. Glen Cove, L. I.—David White.
Diospyros primaeva Heer. Glen Cove, L. I.—David White.
Diospyros prodromus Heer. Glen Cove, L. I.—D. White.
Diospyros provecta Velenovsky. Tottenville, Staten Island.
—A. Hollick.
Diospyros pseudoanceps Lesq. Glen Cove, L. I.—A. Hollick.

CAPRIFOLIACEAE.

- Viburnum hollickii* Berry. Lloyd Neck, L. I.—A. Hollick.
Viburnum integrifolium Newberry. Glen Cove, L. I.—A. Hol-
lick.

OTHER DICOTYLEDONES

- Dewalquea gronlandica* Heer? Tottenville, Staten Island.—A.
Hollick.
Dewalquea insignis Hosius and von der Marck. Kreischer-
ville, Staten Island.—A. Hollick.
Phyllites poinsettoides Hollick. Kreischerville, Staten Island.
—A. Hollick.
Premnophyllon trigonum Velenovsky. Glen Cove, L. I.—A.
Hollick.

INCERTAE SEDIS.

- Calycites alatus* Hollick. Montauk Point, L. I.—A. Hollick.
Carpolithus evonymoides Hollick. Tottenville, Staten Island.
—A. Hollick.

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- Carpolithus vaccinioides* Hollick. Kreischerville, Staten Island.—A. Hollick.
Carpolithus sp. 5 undetermined species from Green Ridge and Kreisecherville, Staten Island.—A. Hollick.
Credneria macrophylla Heer. King's gravel pit, Roslyn, New York.—A. Hollick.
Rhizomorphs. In hard clay ironstones at Tottenville, Staten Island.—A. Hollick.
Tricalycites major Hollick. King's Gravel Pit, Roslyn, Glen Cove, L. I.—A. Hollick.
Tricalycites papyraceus Newberry. Lloyd Neck.—A. Hollick.
Williamsonia Riesii Hollick. Kreischerville, Staten Island.—A. Hollick.

VII.

INSECT GALLS.

Burnham and Latham (1914-24) list the following insect galls from their Flora of the Town of Southold, Long Island, and Gardiners Island. Doubtless many of them may be found further west along the coast in the vicinity of Cold Spring Harbor.

- Acarus Serotinae* Beutm.—Wild Cherry Pouch Gall.
Acraspis erinacei Walsh.—Oak Hedgehog Gall.
Amphibolips acuminata Ashm.—Very abundant on *Quercus ilicifolia* at Laurel, L. I.
Amphibolips confluentus Harr.—Oak Apple.
Andricus cornigerus O. S.—Horned Knot Oak Gall.
Andricus futilis O. S.—Oak Wart Gall on leaves of *Quercus alba*.
A. palustris O. S.—Succulent Oak Gall on leaves of *Quercus palustris*.
A. petiolicola Bass.—Oak Petiole Gall on leaves of *Quercus alba* and *Q. velutina*.
A. punctatus Bass.—Oak Knot Gall.
A. seminator Harr.—Oak Seed Gall.
Asphondylia globosus O. S.—On stems of *Helianthus divaricatus*.
Asteromyia carbonifera Felt. On leaves of *Euthamia tenuifolia*.
Asteromyia rubra Felt.—On leaves of *Solidago bicolor*.
Aulax tumidus Bass.—Lettuce Tumor Gall.

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- Biorhiza forticornis* Walsh.—Oak Fig Gall on twigs of *Quercus alba*.
- Caryomyia tubicola* O. S.—On leaves of *Hicoria glabra* at Cutchogue, L. I.
- Cecidomyia Caryaecola* O. S.—Hickory Seed Gall.
- C. holotricha* O. S.—Hickory Onion Gall.
- C. niveipila* O. S.—Oak Fold Gall.
- Cecidomyia verrucicola* O. S.—On leaves of *Tilia americana* at Southold, L. I.
- C. Nyssaeicola* Beutm.—On leaves of *Nyssa sylvatica*.
- C. (?) ocellaris* Comstock—Maple Spot Gall on leaves of *Acer rubrum*.
- C. sanguinolenta* O. S.—Hickory Cone Gall.
- C. Serotinae* O. S.—Wild Cherry Bud Gall.
- Cinstiticornia pilulae* Walsh.—Oak Pill Gall on leaves of *Quercus velutina*.
- Cecidomyia viticola* O.S.—On leaves in *Vitis* at Mattituck.
- Cynips Pisum* Fitch—Oak Pea Gall.
- Cystiphora canadensis* Felt.—On leaves of *Nabulus*.
- C. viburnifolia* Felt.—On leaves of *Viburnum acerifolium* and *V. dentatum*.
- Dasyneura Galii* Felt.—On flower buds of *Galium*.
- Dasyneura Lysimachiae* Beutm.—On *Lysimachia quadrifolia* at Orient, L. I.
- D. Salicifolia* Felt.—On young willow leaves.
- Diastrophus Cuscutaeformis* O. S.—Blackberry Seed Gall.
- D. nebulosus* O. S.—Blackberry Knot Gall.
- D. niger* Bass.—On leaves of *Potentilla canadensis*.
- Disholcaspis mamma* Walsh.—On twigs of *Quercus velutina* at Greenport, L. I.
- Diastrophus Potentillae* Bass.—Cinquefoil Axil Gall; on stems of *Potentilla Canadensis*.
- Dryophanta polita* Bass.—Polished Oak Gall.
- Erineum fagineum* Pers.—Beechleaf Mite Gall.
- Eriophyes abnormis* Garman—A mite gall on leaves of *Tilia americana*.
- Eriophyes Cephalanthi* Cook.—Greenport, on leaves of *Cephalanthus occidentalis*.
- E. Nyssae* Trotter.—On leaves of *Nyssa sylvatica*.
- E. Querci* Garman.—On leaves of *Quercus velutina*.

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- E. semen* Walsh.—Orient on leaves of *Salix*.
Gnorimoschema gallaesilodaginis Riley.—On stems of *Solidago serotina*.
Holcaspis globulus Fitch.—Oak Bullet Gall.
Hormaphis Hamamelidis Fitch.—Witch Hazel Cone Gall.
H. spinosus Shiner.—Spiny Witch Hazel Gall.
Hormomyia canadensis Felt.—Cutchogue on leaves of *Ame-
 lanchier oblongifolia*.
Hormomyia Crataegifolia Felt.—On leaves of *Crataegus*.
Itonida foliora Russ & Hock.—On margin of leaves of *Quer-
 cus velutina*.
Lasioptera clavula Beutm.—On twigs of *Cornus* at Cutch-
 ogue, Greenport and Southold, L. I.
Lasioptera farinosa Beutm.—On leaf veins of *Rubus*.
L. Lycopi Felt.—On stems of *Lycopus*.
L. nodulosa Beutm.—Orient on stems of *Rubus*.
L. virginica Felt.—On stems of *Triadenum virginicum*.
L. Vitis O. S.—Grapevine Tomato Gall.
Livia maculipennis Fitch.—On the inflorescence of *Juncus
 canadensis*.
Nematus pomum Walsh.—Willow Apple Gall.
Neolasioptera Erigerontis Felt.—On stems of *Leptilon can-
 dense*.
Neloasioptera ramuscula Beutm.— On stems of *Doellingeria
 umbellata* at Orient, L. I.
N. vitinea Felt.—On petioles of grape leaves.
Neuroterus batatus Fitch—Oak Potato Gall on twigs of
Quercus alba.
N. majalis Bass.—On leaves of *Quercus alba*.
Neuroterus noxiosus Bass.—Leaves of *Quercus Prinus* at
 Greenport.
Obolodiplosis Robiniae Hald.—On leaves of *Robinia Pseudo-
 Acacia*.
Oligotrophus salicifolius Felt.—On leaves of *Robinia pseudo-
 acacia*.
Pachypsylla Celtidis-gemma Riley.—Hackberry Nodule Gall.
P. Celtidis-mamma Riley.—Hackberry Nipple Gall.
Pemphigus Populicaulis Fitch.—Popular Stem Gall.
P. Rhois Fitch.—Sumac Tomato Gall on leaves of *Rhus
 glabra*.

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- Phylloxera Caryaecaulis* Fitch.—Hickory Louse Gall.
P. Caryaeglobuli Walsh.
Phylloxera Caryaesemen Walsh.—Orient, on the under surface of the leaves of *Hicoria glabra*.
P. vastatrix Planch.—Grape Phylloxera.
P. vitifolia Fitch.
Phytophaga rigidae O. S.—On leaves of *Salix discolor* at Southold, L. I.
Phyllocoptes quadripes Shim.—Leaves of *Acer rubrum* at Greenport.
Rhabdophaga Salicifolia Felt.—On leaves of *Spirea latifolia*.
Rhabdophaga strobiloides Walsh.—On the tips of branches of *Salix humilis* at Peconic, L. I.
Rhodites bicolor Harr.—Spiny Rose Gall.
R. dichlocerus Harr.—Long Rose Gall.
R. globosus Beutm.—Globular Rose Gall.
R. ignota O. S.—Mealy Rose Gall.
R. verna O. S.—Knotty Rose Gall.
Rhopalomyia anthophila O. S.—On leaves of *Solidago*.
R. capitata Felt.—On stems of *Solidago*.
Rhopalomyia hirtipes O. S.—On aerial stems of *Solidago juncea* at Cutchogue and Peconic, L. I.
R. lateriflora Felt.—On stems of *Aster ericoides*.
R. racemicola O. S.—On flowers of *Solidago rugosa*.
Sackenomyia viburnifolia Felt.—On leaves of *Viburnum dentatum*.
Rhopalomyia Solidaginis Loew.—Goldenrod Bunch Gall.
Solenozopheria Vaccinii Ashm.—Huckleberry Gall on stems of *Gaylussacia baccata*.
Trypeta polita Lw.—Goldenrod Gall.
Trypeta Solidaginis Fitch.—Goldenrod Ball Gall.

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VIII.

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GRIER'S NOTES ON THE FLORA OF LONG ISLAND.¹

NORMAN TAYLOR.

Two botanical journals have been carrying for some months a series of papers on the flora of Long Island. The value of these is practically *nil* and the publication of them should have been declined. The bibliographical footnote discloses not only shortcomings upon the author's part, but an editorial leniency, or carelessness, matched only by the spelling and imperfect bibliography in the main body of the work. More than two score errors of this sort could be enumerated, were there space or inclination to publish such a list. But the actual statements about the plants of the island challenge attention.

Under the general heading "The Native Flora of the Vicinity of Cold Spring Harbor, L. I., N. Y." four things are incorrect: (1) Many of the plants are not native, as particulars below specify; (2) "Flora" is incorrect since scores of garden or specimen plants on private estates are included: (3) by no means all occur, even by stretching one's notion of the "vicinity" of Cold Spring Harbor, anywhere near this locality: (4) in the text (page 24 of the reprint) the author says that besides other sources he has included "all those species *apt* to be encountered by members of the Laboratory." The italics are mine. To allow such a mixture of ideas to appear under the title "Native Flora" is to put serious students of the flora of the island to the wholly needless burden of checking through

¹ Grier, N. M. Unreported plants from Long Island. I. Pteridophyta and Spermatophyta. *Torreyia* **24**: 71-76. 28 O 1924. [Reprint dated 1994.]

— Unreported plants from Long Island, N. Y. II. Cryptogams exclusive of Pteridophyta. *Torreyia* **25**: 5-11. Ja-F 1925.

— Unreported plants from Long Island, N. Y. II. Cryptogams—Part 2. *Torreyia* **25**: 29-35. Mr-Apr 1925.

— The native flora of the vicinity of Cold Spring Harbor, N. Y. Schizophyta, Myxomycetes, Dinoflagellatae, Bacillariophyta. *Am. Midl. Nat.* **9**: 245-256. S-N 1924.

— The native flora of the vicinity of Cold Spring Harbor, N. Y. (Continued). *Am. Midl. Nat.* **9**: 283-318. Ja 1925.

— II. Pteridophyta. (Continued). *Am. Midl. Nat.* **9**: 384-437. My 1925. [Presumably part of the series on Cold Spring Harbor, but there is nothing to indicate this in table of contents, or article heading. Includes, beside Pteridophyta, all flowering plants.]

— The fossil flora of the vicinity of Cold Spring Harbor, *Am. Midl. Nat.* **9**: 513-527. Jl 1925. [Includes besides fossil species a section on Insect Galls.]

— The geology of Long Island with especial reference to the Cold Spring Harbor region and its flora. *Am. Midl. Nat.* **9**: 531-563. S 1925.

The papers from the American Midland Naturalist, not in their original order, with new page numbers (1-265, one-half blank) and no date were reprinted as "The Native Flora of the Vicinity of Cold Spring Harbor, L. I., New York." Contribution no. 8 from the Biological Laboratory, Cold Spring Harbor, N. Y.

hundreds of such records on the off chance that some wheat may turn up among the chaff.

To particularize with thoroughness would try the patience of the editors and readers of RHODORA, as it has already exhausted that of several workers on the flora and vegetation of Long Island. A few examples will suffice:

"*Vaccinium Vitis-Idaea*. Rocky soil, Bayville, L. I.—N. M. G." Finding that plant on Long Island would be comparable to the recent discovery of *Empetrum nigrum* at Montauk.¹ William C. Ferguson Esq., of Hempstead, an enthusiastic and accurate student of the flora of the island wrote for particulars to Dr. Grier, who referred to a card catalog of species at the laboratory, merely recording the extraordinary "find" as it is printed above. There is no specimen, and the author attached so little importance to reporting this arctic-alpine species from Long Island, that he was vague, to say the least, in attempting to substantiate the record.

"*Thuja occidentalis* . . . White Cedar Swamp, Merrick, L. I." This tree is unknown, outside of cultivation, on Long Island. Merrick is in the town of Hempstead, on the south shore of the island, and separated from the Cold Spring Harbor region by the ecologically different vegetation of the Hempstead Plains. Merrick, Ronkonkoma, and other localities which the author particularizes have no more to do with the vicinity of Cold Spring Harbor than Montauk. Many species should be cut from the list, notably those recorded from the Plains, pine barren bogs, and the pitch pine barrens of the interior of the island,—hardly geographically, and certainly not floristically, the "vicinity" of Cold Spring Harbor.

Perhaps the worst feature of the lists is the inclusion of many species wholly unknown as wild plants, on Long Island and, of course, not native. On the Havemeyer, DeForest, Love, Hodenpyl, and Frank Bailey estates, as well as some others, there have been skillful and successful attempts to cultivate rare, or beautiful, or interesting plants. Upon what theory the author selected some of these for inclusion in his lists of native or unreported plants of Long Island, no one can guess. *Ledum groenlandicum*, *Sarracenia flava*, *Trillium grandiflorum*, *Hexastylis virginica*, *Sibbaldiopsis* (*Potentilla*) *tridentata*, *Amorpha fruticosa*, *Calluna vulgaris*, *Paulownia tomentosa* and *Centaurea cyanus* indicate a cheerful inclusiveness in the author's point of view as to the material coming within the scope of local flora studies.

For a good many years Mr. Hicks has maintained a large and successful nursery at Westbury, but no one would be more surprised than he to see *Pachysandra procumbens* and *Euonymus atropurpureus* selected from his list of garden plants for inclusion in a native flora of Cold Spring Harbor. Both of these are credited to the nursery,

¹ Taylor, N. & Hill, H. S. The crowberry at Montauk, Long Island. *Torreyia* 24: 87. 28 O 1924.

which is miles from Cold Spring Harbor, on the Hempstead Plains. The former is also credited to the DeForest place.

Inaccuracy as to plant names and place names characterizes all the lists. Such work naturally stirs suspicion that some records are incorrect, or that plants may have been misidentified.

Millegrana Radiola, for instance, is recorded in Gray's Manual only from "Ditches, Louisburg, Cape Breton," yet it is said to be in "Vicinity, Cold Spring Harbor." No one, not even Jelliffe, who was almost as inclusive as Dr. Grier, has recorded this rare introduced plant from Long Island.

Among the records of Hollick and Jeffrey of fossil plants, Dr. Grier has included scores that are so far reported only from Staten Island, and he cites them so. Why he or the editors admit them into a native flora of Cold Spring Harbor may be known to them. To others their inclusion looks very like useless consumption of printer's ink.

American botanists have lately been accused of an excessive politeness in their criticisms of current botanical literature. Notwithstanding the accusation, the reviewer attempted the desperate expedient suggested by Rose and Stevens in *Science* n. s. **61**: 656-657. 26 Je 1925. He wrote to one of the editors suggesting a curb,—not a drastic one, but some sort of a curb. Nothing happened except a continuance of the flood. Under such circumstances excessive politeness must make way for reviews like this, the writing of which, while not precisely a pleasure, becomes a duty.

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ERRATA

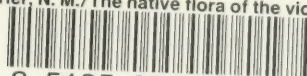
- Page 2, line 4, for Spach., read Spach,
 " 6, " 11, for *solonis* read *Solonis*
 " 31, " 13, for Dod, read Dod.,
 " 42, " 9 from bottom, for polleniferous read polliniferous
 " 49, " 25, for *leonis* read *Leonis*
 " 52, " 19, for *Phyllococe* read *Phyllodoce*
 " 66, " 11, for *Turriis* read *Turritis*
 " 68, " 8, for *stritca* read *stricta*
 " 68, " 31, for *spicta* read *spicata*
 " 81, " 25, for *Urisema* read *Unisema*
 " 117, " 54, FOR f. *strigosifolia* READ var. *strigosifolia*.
 " 158, " 29, for *terrestre* read *terrestris*
 " 171, " 29, for (Pursh) read (Adams)
 " 176, " 26, for au-dessous read au-dessus
 " 181, " 8, for *segata* read *segeta*
 " 183, " 15, for **mississippiense** read **mississippiense**
 " 186, " 4, from bottom, for *Lepidum* read *Lepidium*
 " 195, " 22, for was read were
 " 195, " 32, for lamine read lamina



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Grier, N. M./The native flora of the vic^{gen}



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